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ABSTRACT

Over 150 journal articles, papers presented at professional meetings, dissertations, government publications, contract reports, and studies in progress as of March 1977 on the National Longitudinal Study of the High School Class of 1972 (NLS) are annotated and indexed by subject, author, and sponsoring agency. Introductory chapters describe the NLS data base--including sample size, content areas of data coverage, the time frame in which variables were measured, and accessibility of the data files; and summarize the use of the NLS data, including frequency counts of studies by various categories (i.e. type of report, subject area, sponsoring agency, etc.) and present suggestions for future research. The NLS focuses on the educational, vocational, and personal development of high school graduates, and the personal, familial, social, institutional, and cultural factors that contribute to that development. The purpose of the NLS is to establish a factual basis for verifying and refining federal policy concerned with maximizing individual access to education and vocational opportunity, with improvement of the educational system as a vehicle for preparing youth for productive, satisfying adult roles. Another purpose is to extend knowledge of human development during the years spanning the transition from high school to adult careers. (Author/EVH)

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NATIONAL LONGITUDINAL STUDY of the High School Class of 1972

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REVIEW AND ANNOTATION OF STUDY REPORTS

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Prepared for the

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Foreword

The National Longitudinal Study of the High School Class of 1972, a survey initiated by and conducted for the National Center for Education Statistics, began in the spring of 1972 with over 1,000 in-school group administrations of survey forms to a sample of approximately 18,000 seniors. In the follow-up surveys, the sample was augmented by almost 5,000 additional students from sample schools that were unable to participate in the base-year survey.

The data collected from the in-school and two follow-up surveys have been merged and processed. Over the past few years, a large number of independent studies using the NLS data have been completed or are in progress. These studies are annotated, reviewed, and summarized in this report.

Continuing follow-up requests for data from these individuals are planned through 1979 and perhaps beyond. This series of repeated observations will permit the examination of the relationships between schooling, work, and other experiences to subsequent career choices as well as educational and labor force participation of each of the selected individuals. Such information and the resultant analyses are important to those engaged in formulating legislative proposals and educational policy.

Elmer F. Collins, Director
Division of Multi-Level Education Statistics

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I. INTRODUCTION

A. Background and Purpose

The National Longitudinal Study (NLS) is a continuing project monitored and primarily funded by the National Center for Education Statistics (NCES). This project represents a number of agencies and offices within the Department of Health, Education, and Welfare (DHEW) with interests in the long-range effects of educational policy. The focus of the NLS is on the educational, vocational, and personal development of high school graduates, and the personal, familial, social, institutional, and cultural factors that contribute directly or indirectly to that development. The general purpose is to establish a factual basis for verifying and refining federal policy concerned with maximizing individual access to educational and vocational opportunity, with improvement of the general educational system as it impinges upon young people, and with positive impact toward aiding young people to assume a productive, satisfying, and wholesome adult role in American society. A secondary purpose is to extend the general scientific knowledge of human development in the important years covering the transition from high school to adult careers.

The full-scale study began in the spring of 1972. A national probability sample of 19,136 seniors from 1,070 public, private, and church-affiliated high schools participated in the base-year survey. Each student was asked to complete a Student Questionnaire and to take a 69-minute test battery. Survey administrators were asked to fill out a record information form for each student, as well as the School Questionnaire which provided information about the school's programs, resources, and grading system. In addition, school counselors were asked to complete a special questionnaire designed to provide data about their training and experience.

The first follow-up survey began in October 1973 and ended in April 1974. Added to the base-year sample were more than 4,315 students of the class of 1972 from 248 additional schools that had been unable to participate earlier, bringing the total first follow-up sample to more than 23,000 potential respondents. Some 21,350 young people completed a First Follow-Up Questionnaire, 69 percent by mail and 31 percent by personal interview. Of the 16,683 seniors who completed a Student Questionnaire, 15,635 took part in the first follow-up survey—a sample retention rate of 93.7 percent.

The second follow-up survey began in October 1974, when forms were sent to 22,364 potential respondents, and ended in April 1975. Some 20,872 young people completed a Second Follow-Up Questionnaire, 72 percent by mail and 28 percent by personal interview. Of the 21,350 persons who completed a First Follow-Up Questionnaire, 20,194 (94.6 percent) also participated in the second follow-up survey.

The third follow-up survey began in October 1976 and will end in April 1977. A similar high participation rate, based upon current response patterns, is expected. The data will be processed in the summer of 1977 and will be available for public use early in 1978.

The data files for the base-year and the first and second follow-up surveys have been merged for general public use. Researchers in various government branches and other institutions have used the data in the investigation of diverse educational, vocational, and other social issues. While a considerable amount of useful information has been accumulated, the studies have often not beeen effectively disseminated to the research community and the general public. Many written reports or documents involving the NLS data, except for those published in journals or presented at professional meetings, are generally accessible to only a small group of people. Since four waves of data collection have been conducted, it seems reasonable at this point to ask: What has been done with the NLS data, by whom, and most important of all, what has been learned? Should more analyses be encouraged? If so, what areas of research are most needed?

It is, therefore, the primary purpose of this review to establish an inventory of studies that have used the NLS data base, and to summarize their major findings. The inventory may facilitate the exchange of ideas among users and the identification of areas not being adequately investigated.

B. Procedure

The Research Triangle Institute (RTI) conducted a formal survey of the NLS data users, identified on the basis of lists supplied by the National Center for Education Statistics (NCES) and of lists developed during the NLS operations. Additional information about users of the NLS data came from informal contacts with a variety of people. This survey resulted in a list of over 120 individuals who were interviewed either in person or by telephone. During the interview, a number of questions relating data file construction and suggestions for the future NLS surveys were asked. The individuals were also asked to forward any written materials available for the purpose of review and annotation. A search for study reports was also conducted on recent major journals for identifying studies involving the NLS data. However, it should be noted that, despite the extensive effort to obtain a complete list of the NLS study reports, it is possible that a few may have been missed. As of March 15, 1977, over 150 written documents had been collected. These documents are annotated, reviewed, and briefly synthesized in this report.

C. Overview of the Remaining Sections

The rest of this report is divided into three chapters. Chapter II describes the NLS data base, including the sample size, data coverage in terms of content areas, and time frame in which variables were measured, and accessibility of the data files. For those researchers who are not familiar with the NLS, this chapter should be helpful. Chapter III summarizes the use of the NLS data to March 1977, including frequency counts of studies by various categories, a summary of the major findings from studies completed, and some suggestions for future research. Chapter IV presents an annotated bibliography, subject index, author index, and sponsor index. A list of data file users is included in the appendix.

II. THE NLS DATA BASE

The NLS began with a stratified, two-stage probability sample representing the graduating high school class of 1972, with follow-ups to date in 1973, 1974, 1976, and a fourth follow-up planned for 1979. Detailed, descriptions of sampling scheme, data collection procedures, data processing, and instrumentation can be found in the Data File Users Manual (Levinsohn, Lewis, Riccobono & Moore, 1976). To assist researchers in gaining an overview of the NLS data, this chapter summarizes the basic information that would generally be required in designing an analysis—sample size and content coverage.

A. Sample Size

Data contained in the data file currently available were collected from students representing 1,070 participating schools in the base-year survey, 1,300 schools in the first follow-up survey, and 1,318 schools in the second follow-up survey. The number of students in each school is 18 or less.

The number of respondents available for various subpopulations and for various combinations of instruments contained in the current data files are tabulated in Table 1.* This tabulation provides a summary of the amounts of data available for the several instruments over the survey periods. A diagram of the relationship of the various subpopulations in the data base is shown in Figure 1.*

Both Figure 1 and Table 1 show the patterns of data availability in the data base. Table 1 also presents the amounts of data available for each instrument independent of the others (columns 1 to 5) and for various combinations of the instruments (columns 6 to 12). The pattern of response for various classifier variables is also presented. For example, examination of the table reveals that data are available for all three basic instruments (base-year, first, and second follow-ups) for 14,900 respondents. There are 5,294 respondents who completed only first and second follow-up forms, and there are five other subsets of respondents (ranging from 735 to 134 people) with either two or only one student instrument. Figure 1 illustrates the relationships of these various subsets of respondents for the three basic forms.

It should be noted that missing data for individual questionnaire items are not documented in this report. Although the missing data problem may not be serious enough for most of the variables to hamper analyses, it may still impose some constraints when several variables are required simultaneously in an analysis. Users are advised to examine this potential constraint first. The information for missing data in each variable can be obtained in the Data File Users Manual (Levinsohn, Lewis, Riccobono & Moore, 1976) and Tabular Summary of Questionnaire Data.† Both publications are available from the National Center for Education Statistics.

B. Coverage of the NLS Data

The NLS data are comprehensive. There are over 1,900 variables contained in the data files. Some of them were measured at one point in time, while many others were repeatedly measured. To be fully aware of the coverage of the data content, one should examine the survey questionnaires.‡ Table 2 on the following pages presents a list of content variables identifiable in each survey. The table also shows the longitudinal nature of the data and temporal sequence of certain variables, which is particularly important in causal modeling analyses.

C. Accessibility of the Data Base

The base-year, first, and second follow-up survey data have been merged together, and the data files are available for public use. The third follow-up data collection and processing will be completed by the end of 1977. Information regarding data tape purchasing can be obtained by writing to the Data Systems

* Table 1 and Figure 1 are adapted from the Data File Users Manual (Levinsohn, Lewis, Riccobono & Moore, 1976).

† There is a Tabular Summary of Questionnaire Data from each survey (see Chapter IV, Numbers 4019, 4022, and 4024).

‡ Questionnaires are included in the Data File Users Manual.

TABLE 1. DATA AVAILABILITY FOR SUBPOPULATIONS BY INSTRUMENT COMPLETION
(N = 22,532)

	INSTRUMENT											
SUBPOPULATION	TB	SRIF	BSYR	FFU	SFU	BSYR FFU	BSYR SFU	FFU SFU	BSYR FFU,SFU	BSYR only	FFU only	SFU only
Sex:												
Male	7,898	10,719	8,279	10,484	10,237	422	344	2,581	7,243	270	238	69
Female	7,956	10,889	8,397	10,858	10,619	311	200	2,713	7,657	229	177	49
Unclassifiable	6	17	7	8	16	2	0	0	0	5	6	16
Race:												
White	12,301	16,511	12,847	16,376	16,095	501	394	4,000	11,632	320	243	69
Black	1,952	2,951	2,127	2,913	2,860	128	93	894	1,833	73	58	40
Other	1,549	2,010	1,648	1,940	1,897	77	57	399	1,433	81	31	8
Unclassifiable	58	153	61	121	20	23	0	1	2	30	89	17
M.S. Program:												
Academic	6,537	8,626	6,812	8,520	8,434	206	191	1,936	6,263	152	115	44
General	5,370	7,753	5,673	7,640	7,422	309	226	2,215	4,932	206	184	49
Voc Tech	3,952	5,229	4,197	5,151	4,994	219	127	1,133	3,705	146	94	29
Unclassifiable	1	17	1	39	22	1	0	10	0	0	28	12
Region:												
North	3,521	4,465	3,618	4,483	4,322	188	93	977	3,232	105	86	20
Central	4,122	5,668	4,568	5,541	5,445	178	148	1,151	4,114	128	98	32
South	5,382	7,703	5,513	7,691	7,541	228	178	2,345	4,958	149	160	60
West	2,835	3,789	2,984	3,635	3,564	141	125	821	2,596	122	77	22
Ability:												
Low	4,798	4,783	4,788	4,392	4,256	327	191	10	4,055	215	0	0
Medium	7,008	6,997	7,000	6,600	6,534	270	204	8	6,322	204	0	0
High	4,054	4,053	4,052	3,890	3,896	96	101	1	3,793	62	0	1
Unclassifiable	0	5,792	843	6,468	6,186	42	48	5,275	730	23	421	133
SMS:												
Low	4,531	6,172	4,827	6,117	5,962	245	181	1,533	4,248	153	91	0
Medium	7,562	10,226	7,927	10,157	9,910	330	258	2,552	7,100	239	175	0
High	3,707	4,924	3,863	4,911	4,794	147	96	1,158	3,540	80	66	0
Unclassifiable	60	303	66	165	206	13	9	51	12	32	89	134
TOTAL	15,860	21,625	16,683	21,350	20,872	735	544	5,294	14,900	504	421	134

Note: The abbreviations for the instruments are as follows:

TB = Test Book
SRIF = Student Record Information Form
BSYR = Base-Year Student Questionnaire
FFU = First Follow-Up Questionnaire
SFU = Second Follow-Up Questionnaire

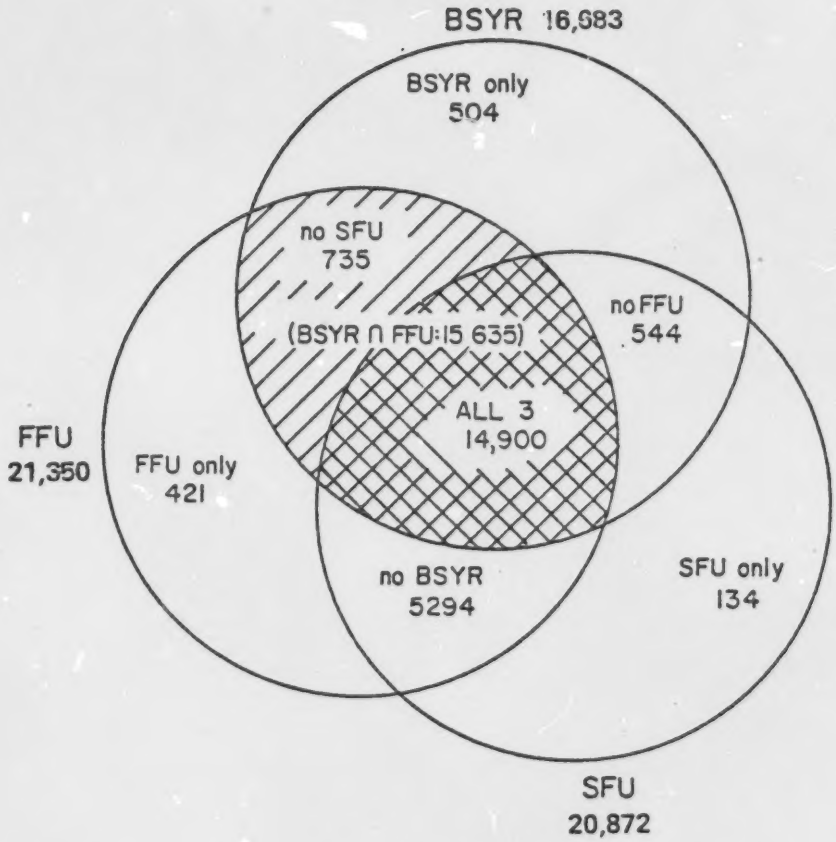

Figure 1. Subpopulations of Instrument Response in Three Years of Data Collection

TABLE 2. CONTENT AREAS IN EACH SURVEY

Content Category	Spring 1972 Base-Year Survey	Fall–Winter 1973–74 1st Follow-Up Survey	Fall–Winter 1974–75 2nd Follow-Up Survey	Fall–Winter 1976–77 3rd Follow-Up Survey
Constitutional factors	Sex, birth date, physical handicap	Sex, birth date	Sex, birth date	Sex, birth date
Ability	SAT, ACT, and test scores (vocabulary, reading, math, letter groups, mosaic comparison, picture-number)			
Socioeconomic status	Parental income, education, occupation	Parental education, occupation		
Home background	Number of persons dependent on parents, number of siblings in college, objects in home, language at home, parental expectation	Parental encouragement	Birth order, number of siblings	
Community environment	Type of community, distance of home from postsecondary schools	Type of community where individual lives	Type of community where individual lives, mobility and reasons	Type of community where individual lives, mobility and reasons
Ethnicity	Race, religion		Race	
Significant others	Relative importance of family, peers, school personnel to secondary program, postsecondary plans, quality of counseling services			
Activity status	Activity plans for Fall of 1973	Activity status in Oct. 1972, Oct. 1973	Activity status in Oct. 1974	Activity status in Oct. 1975, Oct. 1976
Educational attainment	Educational plans (entry, financial support arrangement), factors interfered attainment, school choice	Educational status (degree, certificate received), factors interfered attainment	Educational status (degree, certificate received), factors interfered attainment	Educational status, graduate school application and entry, factors interfered attainment
School characteristics	Secondary school size, student-counselor ratio, ability grouping or tracking, racial composition, college-going ratio, school SES, teacher qualifications, school facilities, counseling services	Postsecondary school control and type	Postsecondary school control and type	Postsecondary school control and type

(continued)

TABLE 2. CONTENT AREAS IN EACH SURVEY (con.)

Content Category	Spring 1972 Base-Year Survey	Fall-Winter 1973-74 1st Follow-Up Survey	Fall-Winter 1974-75 2nd Follow-Up Survey	Fall-Winter 1976-77 3rd Follow-Up Survey
School experience	Time spent on homework, program of study, participation in remedial and special services programs, school quality, courses taken, instructional strategies	Program type, major study area, full-time, financial aid programs, program duration	Program type, major study area, full-time, financial aid programs, program duration	Program type, major study area, full-time, financial aid programs, program duration
School performance	Grade average, extra curricular activities	Grade average, dropout, transfer, satisfaction with schooling, total credits earned	Grade average, dropout, transfer, satisfaction with schooling, total credits earned	Grade average, dropout, transfer, satisfaction with schooling, total credits earned
Work status	Type of work, hours of work, work plans for years after graduation	Resources used for job hunting, work type, hours/week, reasons for not working	Resources used for job hunting, work type, hours/week, reasons for not working	Resources used for job hunting, work type, hours/week, reasons for not working
Work performance and satisfaction	Factors in career selection	Income, pay, and work conditions, satisfaction	Income, pay, and work conditions, satisfaction, application of job training	Income, pay, and work conditions, satisfaction, supervision, application of job training
Noncognitive traits	Self-concept, locus of control	Self-concept, locus of control	Self-concept, locus of control, maturity scale	Self-concept, locus of control
Goal orientations	Work and educational aspirations, expectations, and plans; life goals	Work and educational aspirations, expectations, and plans; life goals	Work and educational aspirations, expectations, and plans; life goals	Work and educational aspirations, expectations, and plans; life goals
Marriage and family	Plans to be a full-time homemaker, number of dependents	Marital status, number of dependents, income, number of children had and expect to have	Marital status, number of dependents, spouse's education and occupation, income, number of children, items owned at home	Marital status, number of dependents, spouse's education and occupation, income, number of children had and expect to have, items owned at home
Opinions	Factors interfered with education, ratings of high school	Usefulness of specialized training in high school	Participation in political activities, consumerism, quality of life	Political activities, sex-role orientation, sex and race biases, rating of high school
Military	Plans for military service	Type, training, duration, satisfaction, plans	Type, training, duration, plans	Type, training, duration, plans

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It should be noted that the currently available data file (base-year, first, and second follow-up survey data) consists of 22,532 records. Each record is 4,086 bytes long and contains 1,495 variables. Three reels of tape are required to hold the data file using a recording density of 1,600 bytes per inch.

III. REVIEW AND SUMMARY OF STUDY REPORTS

A. Extent of Use

A great deal of work on the NLS data has been completed since the study began in the spring of 1972. About 90 persons, in addition to professional staff at NCES and RTI, have used, or planned to use, the NLS data. As of March 1977, 180 report entries have been identified, 151 of them in formal written forms and 29 of them in progress (see Table 3).

TABLE 3. TYPES OF REPORTS INVOLVING THE NLS DATA TO MARCH 15, 1977

Type of Publication	Frequency
Journal publications	7
Papers presented in meetings	32
Unpublished dissertations or papers	16*
Government publications	24
Grant or contract reports	72
Studies in progress	29
Total	180

* There are four dissertations, three dissertation proposals, and nine other unpublished papers.

The majority of study reports, as expected at this early stage, are products of grant or contract research. There are 72 reports of this sort. Presentations at professional meetings, particularly those of the American Educational Research Association and the American Psychological Association, are another important outlet for research products. Since 1973, there have been several presentations each year, totaling 32 reports. The extensive support and involvement of the NCES also led to 24 publications through the Government Printing Office. In addition, timely information drawn from the NLS has appeared several times in the NCES and OPBE annual reports to the Congress.

Researchers in academic settings have begun using the NLS data. As of March 1977, 16 unpublished dissertations or papers were found which used the NLS as the primary data source. (There are four dissertations, three dissertation proposals, and nine other unpublished papers.) It is anticipated that more university faculty members and graduate students will use the data as more follow-up data become available and as the ready availability of this data source becomes more widely known.

Important media for information dissemination are professional journals. The NLS results are just beginning to appear in such media. Seven articles so far were found in professional journals. The number of journal publications will certainly increase with time and as more analytic work is completed, since there is usually a long time lag for journal publication.

The use of the NLS data is in a continuous upward growth. Table 4 shows that by the end of 1973, only 11 reports were completed, while by the end of 1976, 113 additional reports were completed. In 1976 alone, there were 58 reports, about six times as many as in 1973. It seems likely that more people are becoming aware of the data base, and thus more studies using the data are being initiated, particularly in university settings.

TABLE 4. NUMBER OF REPORTS ISSUED IN EACH YEAR

Year	Frequency
1973	11
1974	17
1975	38
1976	58
1977 (by March 15)	27
Total	151

Note: These counts do not include studies in progress.

What areas of research have drawn the most attention, and what areas have not been adequately investigated? To answer these questions, the study reports were classified by subject areas as shown in Table 5. Clearly,

TABLE 5. NUMBER OF STUDIES BY SUBJECT AREA

Subject Area*	N
General description (summary data)	15
Secondary education	
Student characteristics	14
School effects	12
Postsecondary education	
Access	37
Performance	15
Financial aid	15
Vocational education	9
Labor force participation	17
Psychological development	10
Home environment	3
Methodology	
Sample design	12
Data collection	9
Instrumentation	6
Measurement	6
Weight calculation	4
Nonresponse bias	4
Analysis strategy	4
File construction	12
Military service	4
Other (history, purpose, model, priority, etc.)	17

* The classification of subject areas was based upon studies through March 15, 1977. Other study areas are possible as shown in Chapter II.

Note: A report could be entered in more than one subject area, thus there are 225 entries for 151 studies.

there are a greater number of studies dealing with survey methodology and with postsecondary education, particularly regarding the question of access, than any other areas. Of the total 225 study entries, 57 are methodological and 52 relate to postsecondary education. A smaller number of studies concerned secondary education, vocational/technical education (particularly the impact of such training), labor-force participation, and psychological development. Other possible content areas, such as marriage and family and the impact of counseling, have not yet appeared in research reports.

The number of studies alone may not be an adequate indicator of the extensiveness of research in an area because reports vary in length, in thoroughness, and in quality; thus, the studies should be read and evaluated as well as counted. Furthermore, the lack of study in an area may not necessarily reflect a lack of research interest. The early survey data may not be adequate for studies of such topics as college performance and vocational attainment. This limitation will be reduced when later follow-up data become available.

It is quite clear that the major research focus so far has been on the college-going members. Those who did not go to college but instead went to work or entered some kind of vocational/technical training have not been carefully investigated. No systematic modeling of vocational attainment has been done. In addition, although a few studies have examined high school characteristics such as curriculum and school quality in relation to student development, and a few studies have reported on psychological development, research in these areas was far from being comprehensive. What is more, no study has been directed to examine marriage and family formation and some community and society factors in relation to human development. Perhaps future studies will place some emphasis on these areas as more data become available. It therefore seems justifiable at this point to state that the potentials of the NLS data base in many substantive areas and the longitudinal nature of the data have not yet been fully exploited. A thorough exploration of a comprehensive data base like the NLS will probably require more time, additional funding resources, and a wider participation by federal agencies and the community of social scientists.

The National Center for Education Statistics (NCES) has been the primary sponsor and technical monitor of the study. As shown in Table 6, there are 79 reports which were produced under contracts to NCES. Since the follow-up data is becoming more concerned with educational outcomes, such as vocational attainment and quality of life, it seems likely that other government agencies will begin using the data more extensively. The Office of Planning, Budgeting, and Evaluation, National Institute of Education, Department of Defense, and other federal organizations have already begun to do so. It is possible that more studies will be initiated by other agencies as more longitudinal data become available, particularly those regarding career development and family formation.

TABLE 6. NUMBER OF STUDIES BY SPONSORING AGENCY*

Sponsor	N
National Center for Education Statistics	79
Office of Planning, Budgeting, and Evaluation	8
National Institute of Education	3
Office of Education	3
Assistant Secretary for Planning and Evaluation	1
Department of Labor	1
EPRC for Higher Education and Society	1
Department of Defense	3
Private Foundations	1
Total	100

* This tabulation includes only government publications and contract and grant reports known to have been in existence by March 15, 1977.

B. Major Findings

As mentioned previously, the NLS has provided a unique data base for educational and other social behavioral research. The repeated surveys on the same group of individuals not only provide timely cross-sectional information but also allow longitudinal analyses for certain issues. Over the past few years, as presented in the preceding section, a large number of independent analyses of the NLS data have been completed, and a considerable amount of information has been accumulated. For example, it was learned that, although women have better academic credentials than men, women still have a somewhat lower college attendance rate than men; the difference, however, has decreased over the past decade. It was also found that, although whites, in the aggregate, are more likely to attend college than blacks, this difference is wholly a function of class background and academic preparation. In addition, whites, on the average, are more likely than blacks to enter colleges of higher quality as indicated by higher selectivity level. The data show that, while students in academic high school programs are better prepared for college education even after class background, ability, and aspiration are considered, financial aid programs do not seem to have a substantial impact on college persistence. The data also show that proximity to a two-year college has an important impact on college attendance, primarily for middle class students. Much of this type of information has policy implications and has value in enhancing our understanding of human development.

This section summarizes the major findings from a number of the reports listed in the next chapter. The focus is placed upon the following areas: (1) student characteristics and high school experience, (2) access to post-secondary education, (3) performance in college, (4) labor-force participation and vocational training, (5) psychological development, and (6) methodological studies. Findings from other areas are not summarized here either because their related analyses have not been completed or are considered inadequate. Some additional information, however, can be obtained in the next chapter.

1. Student Characteristics and High School Experience

The NLS sample represents about three million high school seniors in 1972. About 82 percent of the seniors are white, 9.5 percent are black, and 8.5 percent are members of other minority groups. The sexes are equally represented for whites, but black males comprise only 45 percent of all blacks in the sample, suggesting higher than average attrition rates for black males in kindergarten through twelfth grade. Although those high school seniors in 1972 received varying types of instruction in school and had different experiences, they, as a group, are generally satisfied with their high school education.

Of the class of 1972, about half of the white students and a quarter of the black students were enrolled in academic programs in high school while about half of the black students and 29 percent of white students were enrolled in general programs. The rest of the students were enrolled in vocational/technical programs. Echternacht (1002)* examined the characteristics of these students and found that both vocational and general students scored lower than academic students on the academic ability tests. Compared with general

* The four-digit number following the author's name is the catalog number used in Chapter IV.

students, vocational students achieved higher grades, were less alienated toward school, and focused more in their postsecondary aspirations on the work world.

Several investigations related students' background characteristics to academic ability and grade performance (e.g., Creech, Echternacht, Freeberg & Rock, 1001; Fetters, 4002, 4003, 4006). In general, the findings are consistent with previous studies: women slightly outperformed men in reading, but men slightly outperformed women in mathematics; blacks scored about one standard deviation below whites in academic ability tests, and students of higher socioeconomic background (SES) had higher test scores than did students of low SES. The median class standing of women was about 17 percentage points higher than that of men. It seemed that women had better academic credentials than men; however, women had lower college-going rates and lower educational and vocational aspirations than men.

An important question is: Do differences in school programs and other academic credentials matter in terms of the students' subsequent life chances? Several studies have implicitly examined this question, and the results indicated that differential school experience does have an impact on both work and college. For example, Peng (1004) found that receiving job training in high school correlated positively with occupational attainment and income after graduation. Participants in the program were more likely to be employed and had a higher median income than nonparticipants. Bower, Pierce, Blitch & Carr (5005) and Peng & Fetters (2025) also showed that high school programs are related to college entry and college performance after other variables such as socioeconomic background, ability, and aspiration are controlled. They argued that high school programs provide students with different academic preparation which, in turn, has an impact on college entry and later performance.

The impact of quantity of schooling, counseling services, and school resources on student attainment currently are being examined by several other investigators. The findings, when available, should enhance our understanding of the educational process.

2. Access to Postsecondary Education

The general question of who goes to college and where has attracted the attention of more investigators than any other topic. The findings can be grouped into five areas: (1) basic enrollment patterns, including comparisons with past studies, (2) sex and race differences in the college attendance process, (3) delayed entry, (4) the question of where students go to college, and (5) the impact of financial aid and proximity on college attendance.

In the studies to be summarized in this section, postsecondary education generally refers to enrollment in an academic program at a two- or four-year institution. Thus, unless otherwise noted, attendance at non-degree-granting vocational and technical schools is excluded from consideration. There also are other variations in the manner in which different investigators defined college attendance. For example, some included students who delayed entry by a year or more, while others restricted their analyses to first-time enrollments in October 1972 (i.e., the fall immediately after graduation from high school). Such differences generally will be ignored here, unless they appear to produce appreciably different conclusions about the college attendance process.

a. Basic Patterns in College Attendance

Over the past decade, the rates of enrollment for high school students who continue their education after graduation has declined slightly at four-year institutions and declined markedly at vocational/technical schools, while nearly doubling at two-year junior and community colleges. Although, in balance, the trend was downward when considering all forms of postsecondary education, it was slightly upward, as a whole, when considering only degree-granting institutions. Approximately 43 percent of the NLS high school graduates entered degree-granting institutions in fall 1972 compared to about 41 percent a decade ago (Peng, 1003).

Not surprisingly, college attendance rates continue to vary by sex and social class. However, there have been a number of interesting changes over the past decade. For example,

although men are still somewhat more likely than women to attend either a two- or four-year college after high school, the sex difference in attendance rates dropped from 9.4 to 3.7 percentage points between 1961 and 1972. Social class differences in college entry also have been reduced somewhat over this same period, yet the four-year college attendance rate for students in the top SES quartile is still about double that for students in the bottom SES quartile.

One other noteworthy observation is that the proportion of highly able students going on to four-year colleges has declined. For instance, 70 percent of the men in the top ability quarter of their high school classes in 1961 went on to attend four-year colleges. In 1972, the figure had dropped to 54 percent (Peng, 1003).

b. Race and Sex Differences in College Attendance

In assessing the question of who goes to college, it is fruitful to distinguish between attendance patterns deriving from academic credentials students acquire in high school and those arising entirely independently of such credentials. For example, to what extent do poor grades in high school as opposed to limited family resources decrease the likelihood that a black or lower-class youth will attend college? Several studies of the NLS respondents have examined questions of this kind. In general, the task is one of assessing the relative importance of different background and school variables and how they are related to one another in the educational attainment process as students move from high school to college. Most of the investigations in this area, thus far, have tended to focus on race and sex differences either by introducing these respondent characteristics as dummy variables into a multiple regression analysis or by conducting separate but parallel analyses of different groups of respondents classified by race and sex (Thomas, 3014; Thornton, 3016; Jackson, 3006). In the first approach, the investigator is interested in estimating the relative effects of being a woman (or man) and of being black (or white) at different points in the educational process. In the second approach, interest is focused on differences and similarities in the underlying causal mechanisms that may help explain differences in outcomes between subgroups.

The main results show that although whites, in the aggregate, are more likely to attend college than blacks, this difference can be largely attributed to class background and academic credentials. Controlling for social class and scholastic aptitude, blacks of both sexes are more likely than whites to attend college. The positive, net effect of being black is partly due to the positive advantage that accrues to blacks by being more likely than whites with comparable academic ability to be placed in a college preparatory curriculum and to receive better grades in high school; but it also reflects a net positive advantage of being black on college attendance independent of the student's social background or academic credentials.

In regard to sex differences, men, as noted earlier, are still more likely to attend college than women, although these findings cannot be generalized to blacks. Sex has no net effect on the college attendance patterns of blacks. Unlike whites, black women actually are more likely to attend college than black men; however, this is linked to the fact that black women get much better grades in high school.

These studies also found that social class is far more important than either sex or race in the college attendance process. This is in part because class background is correlated with scholastic aptitude and also with placement in a college preparatory curriculum in high school, independent of aptitude and grades. Thus, one reason why students from lower SES backgrounds do not go to college is because they do not possess the kinds of credentials that typically are important in the college admissions process. These same studies also found, however, that over half of the influence of social class on college attendance is direct, meaning that it is independent of a student's academic credentials, sex, or racial origins. In other words, even if a lower SES student had good grades, high aptitude, and was enrolled in an academic curriculum, his chances of going to college were still substantially less than an upper-middle class student with the same credentials. This was true for both races and both sexes.

c. Delayed Entry to Higher Education

About 5 percent of the NLS seniors who graduated in 1972 delayed entry to a two- or four-year college until fall 1973 (e.g., Peng, Ashburn & Dunteman, 4020; Bailey & Collins, 2002). Bowers et al. (5005) have examined the process that leads to delayed entry, including the study of the respondent's work and marital status during the intervening year.

In general, the basic factors involved in delayed entry do not differ substantially from those for immediate entry. That is, academic curriculum, academic aptitude, and rank in high school class are among the highest correlates of college entry, whether delayed or immediate. Also, in both cases, the influence of social class and significant others such as parents and peers, as well as the level of education the respondent desires, all have modest but significant effects on college attendance.

More interesting, perhaps, are the influences of marriage and earned income, both of which have negative effects on delayed entry. Respondents who were married after high school were less likely to enter college in fall 1973 than those who were single. Similarly, those with higher incomes were less likely to attend. Thus, it appears that relatively high income for students who do not go on to college immediately after high school may serve as an alternative opportunity to attending college and that college at this point would entail too heavy an investment in foregone earnings. Marriage also may represent an alternative opportunity to college or it may increase the responsibility to increase one's current, disposable income.

d. Where Students Go to College

About 29 percent of all NLS respondents attended four-year institutions immediately after graduation from high school, 14 percent attended two-year colleges, and another 10 percent enrolled in vocational and technical schools (Peng, 1003). Several studies investigated differences in the characteristics of students attending different types of institutions (e.g., Bowers et al., 5005; Peng, 4021), including one study which ranked colleges using Astin's selectivity index (Bailey & Collins, 2002).

With regard to the traditional two-year versus four-year distinction, as expected, the two-year junior and community colleges tend to attract students of lower ability and those from somewhat lower SES backgrounds than do four-year colleges. It appears, however, that the increase in two-year college enrollments over the past decade was more evident among middle class and middle ability students than among low SES and low ability students. This may reflect both the increasing availability of these institutions and the rising costs of attending a four-year college. Some authors have noted that these middle-range groups may not be poor enough to receive financial aid grants and yet are not bright enough to win academic scholarships or wealthy enough to ignore the costs of a four-year, residential college.

Controlling for academic ability, blacks are more likely than whites to enroll in four-year institutions, while whites are more likely than blacks to enroll in two-year junior and community colleges. For example, 7 percent of whites and 16 percent of blacks in the lowest ability quartile enrolled in four-year colleges. For other test quartiles, the black advantage in four-year college attendance ranged from 11 to 27 percent. Similar results were obtained for Hispanics, although the attendance rates for this group were higher than those for whites at both four-year and two-year institutions, controlling for academic ability.

Somewhat different results, however, are obtained when a college selectivity index is used instead of the simple two-year versus four-year distinction and the analysis is restricted to students entering four-year institutions. Consistent with the results of other studies reported earlier, proportionally more whites than blacks who attend four-year colleges are attending highly selective institutions. However, when academic ability is controlled, just the reverse is found. For example, 24 percent of all white four-year college students in the top ability quartile were enrolled in the higher ranked colleges, as compared to 43 percent of the blacks in this quartile. At the other extreme, 3.6 percent of the blacks in the lowest ability quartile attended a selective college, as compared to 0.3 percent of the whites.

The "difference" in results shows up at the other end of the college selectivity ranks. First, it should be noted that about one-half of the four-year college student population in the United States attend schools with low selectivity scores on Astin's scale (i.e., institutions with selectivity levels of 0, 1, and 2 on an eight-point scale). These institutions are largely undifferentiated from one another with regard to the calibre of students they admit, probably as a consequence of relatively open admission policies that do not require admissions tests except for counseling and guidance. The bulk of all blacks attending four-year colleges (71 percent) end up in this class of institutions, including about one-half of those in the top ability quartile, while only 49 percent of white four-year college students attend these low selectivity colleges. Exactly what this means, however, is not clear, since, as the authors point out, it may primarily be a function of the disproportionate number of blacks who continue to attend predominantly black colleges and the very low ranking of these institutions on the selectivity scale (Bailey & Collins, 2002).

e. Financial Aid and Proximity

As indicated in the bibliography with this report, a fairly large number of studies have been undertaken on such manipulatable characteristics of institutions as financial aid and the location of colleges relative to the student market. However, as of this writing, only a few of these reports were available, plus one or two others that did not focus on these issues but nevertheless produced some relevant findings.

Jackson (3006), for example, tested several models of the influences on postsecondary school decisions, including both personal attributes and various economic and ecological characteristics of the student's home and community environment. The models attempted to predict both college attendance and, more simply, whether or not students had applied to a college. Among the various predictors were several measures of the availability of a college in the student's locale, such as the number of nearby institutions, whether they were public institutions, and the average costs of tuition and fees. Despite large variations in the NLS sample, these measures were *unrelated* to postsecondary school decisions, as assessed both in terms of partial and zero-order correlations. Using a similar but more elaborate set of measures of institutional availability, Bowers et al. (5005), in a separate study of the NLS students, obtained the same results, *except* in the case of predicting entry to *two-year* community and junior colleges. In that particular instance, the ecological variables had a greater direct impact on attendance than did either the student's academic credentials or the disposable funds he had available for college.

Turning to the question of financial aid and disposable funds for college, Doermann (2015) attempted to estimate from the NLS data the number of able high school graduates who do not go to college but who might be available if the colleges attempted to recruit them. For this purpose, the data were cross-tabulated by family income and the respondents' verbal SAT scores. Somewhat surprisingly, this analysis yielded estimates that among the more able students who did not enter college (i.e., those who scored 450 or above), there were about 48,000 students in the class of 1972 coming from families in the highest quintile of family income ($25,000 and over) and 21,000 students from families in the bottom quintile (less than $8,680). In other words, the pool of students who would be predicted to have the least difficulty in college *but are not enrolled* is over twice as large among families who probably can afford to send their children to college than among those who cannot.

The relationship of disposable funds to postsecondary enrollment was examined by Bowers et al. (5005) in an elaborate causal model of the college attendance process. Among the measures of disposable funds jointly considered were parents' income, the number of people dependent on the student or his parents for financial support, and whether the student planned to obtain or had been offered money for college from any scholarship, loan, or work program. After taking into account other social background and individual characteristics, the proportion of variance explained by this set of variables in a student's attending any form of postsecondary education immediately after leaving high school was one-half of one percent.

A more focused study on the question of financial support for higher education has been completed by Riccobono et al. (2028) showing who receives federal and nonfederal assistance. Just over a third of the NLS students enrolled in some form of postsecondary education in 1972 received some form of aid other than family and personal support. About half of the aid came from federal sources; the rest came from nonfederal sources.

The type of postsecondary school one attended, however, was an important factor. Students entering four-year colleges were much more likely to report receiving both federal and nonfederal aid than were students enrolled in two-year institutions. Differences by social class and ability also were found. Those from lower income families, not surprisingly, were more likely than students from higher income families to receive nonfederal and federal aid, but particularly the latter. Ability, on the other hand, was positively related to receiving nonfederal aid for four-year college entrants, while negatively related to receiving federal aid. That is, there was a tendency for more students in the lower ability quartile to receive some form of federal support than for those in the upper ability quartile. This is probably the result of the correlation between ability and SES. Those with the greater financial need tend to have lower test scores.

We will return to the subject of financial aid programs in the section on college retention and withdrawal.

3. Performance in Postsecondary Education

As the NLS follow-up data become available and more widely disseminated, it is expected that more investigators will turn their attention to tracing the progress of the respondents as they move through college and on into graduate school, and eventually into the labor market. A few studies of this kind already have been completed and are reported here. They include: (1) a study of sex differences in the choice of college majors; (2) a study of college transfers, including students who transferred from two-year to four-year institutions; and (3) studies on college retention and withdrawal.

a. Choice of College Major

Polachek's (1006) study focuses on sex differences in career decisions as reflected by vocational aspirations, ability, and the content of high school and college courses. As early as high school, for example, women tend to specialize more in English and language, while shying away from math and science. Although they spend more time at homework, they spend less time at part-time work outside of school and, as adolescents, they are less interested in careers than men.

With respect to choosing a particular field of study in college, students with greater quantitative ability tend to major in math, science, engineering, and medically related fields, while those with high verbal ability choose humanities and social sciences over other fields. Moreover, those with more precollege background in a particular field were more likely than others to choose that field as a major in college.

Even when adjusting for ability differences and other background variables, however, women tend to major in education, home economics, and medically related professions such as nursing, while men tend to major in engineering and business. Comparing the NLS results with those of a nationally representative sample of students at the same point in their careers in 1959, some diminishing of sex differences nevertheless was discernible over the decade.

b. Students Who Transfer

Peng's (4021) study of college transfers dealt primarily with different patterns of movement between and among two-year and four-year institutions from October 1972 to October 1974, and the characteristics of those transfer students. During this period, the number of moves was rather substantial in some situations. Within two years of matriculation, 16 percent of the four-year college entrants had transferred to another four-year college, while only 3 percent had transferred to a two-year college. Although there was little difference between four-year institutions in their rates of out-transfer when classified by selectivity level (based on Astin's scale), more transfers overall were downward, i.e., to less selective colleges, than upward. Among

those who originally entered two-year junior or community colleges, two years later 24 percent were attending a four-year institution and 4 percent were enrolled in a different two-year college.

Comparing students who transferred from one four-year college to another with persisters who remained in the same college after two years, the transfer students tended to be from higher socioeconomic backgrounds and to be women. They also had lower aptitude but outperformed their classmates. It remains unclear why students who transfer from one four-year college to another obtained better grades than their classmates and yet tended as a whole to move to less selective institutions.

Comparing students who transferred from two- to four-year colleges with other students who matriculated at two-year institutions, the former, not surprisingly, were more likely than the latter to have been enrolled in an academic versus a technical or vocational program in college, to have obtained better grades, and to be from higher socioeconomic backgrounds.

On the other hand, students who transferred from one two-year college to another did not differ from persisters, while those who transferred from four-year to two-year institutions differed from their classmates in several important respects. These four-year entrants were having academic difficulty in college initially, had lower-than-average aptitude but strong educational aspirations, and tended to come from middle and upper-middle class families. It is apparent that those students in four-year colleges who are under pressure to obtain a college degree but are not doing well relative to their classmates frequently transfer to a two-year institution.

Another type of comparison was made between students who matriculated at a two-year community college and later transferred to a four-year institution and their counterparts who initially matriculated at four-year institutions and were still enrolled. The two- to four-year transfers were consistently lower in academic ability, aspirations, and social class, and obtained poorer grades than their four-year college classmates in the year *after* transfer.

c. College Retention and Withdrawal

By fall 1974, two years after matriculation, about one out of every three four-year college entrants and three out of every five two-year college entrants had left college. Numerous factors were involved (Peng & Fetters, 2025). Based upon multiple regression analysis, the most important predictors for persistence by four-year college students were found to be: college grades, rank in high school class, high school curriculum, educational aspirations and employment, race, and social class background, in that order. For two-year college entrants, a somewhat different order and set of variables were involved. In rank order of importance were: college grades, sex, rank in high school class, high school curriculum, social class, and educational aspirations.

More specificially, there was no net sex difference in withdrawal rates among four-year college entrants in the NLS; however, among students in academic programs who originally matriculated at a two-year junior or community college, men were substantially more likely than women to be still pursuing a degree in the third year of the study. In contrast, there was no net race difference in withdrawal behavior among two-year college students; however, among four-year college entrants, blacks were substantially more likely than whites to be still enrolled in college, when other background variables are controlled.

The influence of college grades was substantially stronger than either having enrolled in a college preparatory curriculum in high school or academic ability in predicting retention or withdrawal from either type of institution. High educational aspirations, as measured before these students entered college, also had a modest depressant effect on withdrawal, while employment had a depressant effect on retention, but only in the case of four-year college entrants. That is, students who entered four-year colleges in October 1972 and were holding jobs at the same time were less likely than others to still be in college two years later.

Finally, social class in the Peng and Fetters' study (2025) had a modest effect on withdrawal behavior among entrants to both types of institutions; however, whether or not a student had received either a loan or scholarship had no effect. Taken as a whole, the authors suggest that motivational factors are substantially more important than financial aid or ability in determining early withdrawal from college.

Similar results were obtained by Bowers et al. (5005) in an analysis that was restricted to a shorter time frame, i.e., withdrawal by October 1973 or one year after matriculation for those students entering postsecondary institutions by fall 1972. Bowers' analysis, however, contained a considerably larger number of variables, including marital status and current earnings. A large depressant effect was found for marriage on college retention, in fact, as large an effect as found for any other variable in his analysis, except one's *current* educational plans. Likewise, the respondents' (and spouses') combined income had a modest negative effect on continuing college, just as it had on delayed entry.

4. Labor-Force Participation and Vocational Training

Much analytic work on labor-force participation remained descriptive. Some investigations on work behavior using comprehensive modelings are being conducted but the results were not available in time for this report. Nevertheless, some of the descriptive data are informative, and they are highlighted here.

In October 1973, one year after graduation, 65 percent of the class of 1972 were employed in full- or part-time jobs. Among those not holding jobs, one out of five was looking for work. In October 1974, the proportion of employment of the total group slightly increased: about two-thirds were working at either full- or part-time jobs; about 6 percent were unemployed; and 27 percent were not in the labor force. Most of the latter group were either homemakers or attending college.

Twice as many blacks as whites who were unemployed in October 1973 were still looking for work a year later. Some sex differences in employment are notable: Most women who worked in October 1973 were employed in traditionally "female" occupations such as clerical and sales jobs. For both men and women who worked in October 1974, blacks and Hispanics tended to be underrepresented in professional and managerial jobs. Black men were markedly overrepresented in the military services (NCES, 4010; Eckland & Bailey, 4001).

The impact of formal training on employment has not been fully investigated using the NLS data. In October 1974 only one in four of all employed persons had received formal education (not counting on-the-job training) to do the kind of work at which they were employed. An assessment of job training programs in high school found that, in 1972, one-third of U.S. high school seniors were enrolled in special training programs to prepare them for immediate employment after graduation. Women students, members of minority groups, and those of low academic ability and low socioeconomic background were most likely to undergo such training. Most of these young people, as surveyed about one year later, think well of the programs and have been able to apply their skills in jobs after high school. The programs would be more effective, as indicated by students, if they could provide the students with more experience, more information about related jobs, and up-to-date tools (Peng, 1004).

Similar data are available for postsecondary vocational education. More analyses are needed in this area to enhance our understanding of the vocational attainment process of young people.

5. Psychological Development and Life Goals

The NLS included a number of scales on important personality traits, with repeated measures over time. In reaction to new experiences and role demands as adolescents move from high school to college or into marriage or the labor force, a variety of attitudinal and personality changes can be anticipated. Two studies have been completed that focus on such changes (Gruber, 3005; Conger, Peng & Dunteman, 5020).

a. Self-esteem and Locus of Control

Reflecting the kind of data available in the NLS, most attention has been given to

two personality attributes, self-esteem and locus of control. The scales measuring these attributes each consisted of four items, the former a modification of Rosenberg's self-esteem scale and the latter a short form of Rotter's locus-of-control scale.

In both studies the authors examined a number of correlates of self-esteem and locus of control in the base-year survey. Some of the main findings were (a) although men and women did not differ significantly in self-esteem, women had stronger feelings of internal control of their environment than men; and (b) whereas blacks were higher than whites in self-esteem, they were lower in locus of control, meaning that blacks were more inclined to place the determination of their behavior on external events outside their control. Both sets of findings are consistent with other recent studies of high school students.

Of the various predictors considered in the models, however, the strongest correlate of locus of control for all race and sex groups was ability, while the strongest predictor of self-esteem was high school class rank for whites and academic ability for blacks.

One of the more interesting findings was that the association between these two measures, i.e., locus of control and self-esteem, was positive for whites but negative for blacks. These findings, together with those mentioned above and reported elsewhere, suggest that blacks are apparently able to cushion the expected depressant effects of generally low ability and poor performance in school by placing the blame for their lack of success on conditions outside their own control, which is one reason for their capacity to maintain a high level of self-esteem and, as noted elsewhere, high educational aspirations, despite these handicaps.

In the second stage of Gruber's analysis, he asked: To what extent, if any, do these particular personality traits predict post-secondary education or work outcomes for specific groups? Controlling for a variety of social background, school, and individual characteristics, neither locus of control nor self-esteem had a significant direct effect on college attendance or on the labor force participation of black women or whites of either sex. However, for black men, although self-esteem was of no consequence, feelings of *internal* control had a positive direct effect on college attendance—an effect that was as strong as the influence of ability, grades, or class background on college attendance.

Turning to the question of stability or change in these measures over time as a consequence of events that occurred after students left high school, the results first of all show that the stability of the constructs between the spring of 1972 and the fall of 1973 were not very high. The zero-order correlations separately for whites and blacks were .405 and .301, respectively, for self-esteem and .418 and .388, respectively, for locus of control. This was due in part to the relatively low reliabilities (i.e., internal consistency) of the scales—between .55 and .66 depending upon the time of administration.

A year after leaving high school, both blacks and whites, on the average, experienced an increase in feelings of internal personal control, although blacks increased less on the scale than whites, thereby widening the earlier race difference in locus of control. Similarly, there was a large increase in self-esteem among whites after high school which was not matched by blacks. The effect was to completely wash out the earlier race difference in self-esteem favoring blacks. The smaller increase among blacks apparently was due to the proportionately larger number of blacks than whites with low ability and who did not go to college, both of which tended to depress self-esteem in the year after high school.

Controlling for initial self-esteem in 1972, Gruber found that ability continued to affect both self-esteem and locus of control a year later, particularly among blacks. The direct effect of academic ability on self-esteem among blacks, in fact, was now stronger than it was in high school. The change in self-esteem from high to low among blacks was largely restricted to the lowest ability groups who upon leaving high school were forced to face the prospects of marginal employment and limited educational opportunities. For blacks who got into college, on the other hand, it was a different story. They maintained a high level of self-esteem and developed a stronger sense of personal control, which suggests and represents a shift from blaming the system to an assumption of personal responsibility.

Other group comparisons also showed some interesting changes in self-esteem and locus of control. For example, Conger, Peng & Dunteman (5020) found that men who had entered the military service increased in self-esteem. In contrast, the NLS graduates who were "looking for work" in October 1973 were relatively low on self-esteem and external locus of control in high school and were even lower on these scales a year later, presumably in reaction to the frustration of being unemployed.

b. Life Goals

In addition to the above psychological measures, the Conger, Peng & Dunteman (5020) study examined group profiles and patterns of change on three scales of life goals relating to work, community, and family.

As expected, men were somewhat more work-oriented in their post-high-school aspirations than women in the base-year survey. Equally large differences occurred among academic ability and ethnic groups, with lower academic ability respondents and blacks and Hispanics more work-oriented than other respondents. With regard to community and family orientations, blacks were the most community-oriented and whites the least, while Hispanics were the most family-oriented.

Although the subgroup orderings and differences on these scales remained relatively unchanged between the base-year and the first follow-up, the scales nevertheless were quite responsive in some situations to changes in social roles after high school. For example, women who became homemakers rated work as extremely unimportant compared to other subgroups, while men in the military had very low ratings on family orientations.

6. Methodological Studies

Most of the methodological reports (relating to sample design and its efficiency, data collection procedures, and instrumentation) are technical documentations by RTI of survey methods used in the NLS. Systematic uses of the NLS data for survey methodological inquiry in general are, however, limited to only a few studies in the following areas: nonresponse bias and measurement properties.

a. Nonresponse Bias

The NLS data are useful in studying response bias in relation to individual characteristics and experience. Peng, Bailey & Dunteman (5056) compared high school self-reported dropouts and simulated dropouts (i.e., students with low SES and academic ability) with graduates on their participation rates, efforts required for data collection, and the overall quality of their response in a longitudinal survey. It was found that dropouts were less likely to return mail questionnaires; had lower retention rates in a longitudinal study; needed more effort to trace their residences and to complete editing checks; and generally provided data of lower quality. It was also found that no substantial differences in data quality as measured by completion and consistency indices existed between those dropouts and graduates who were interviewed. The authors thus suggested that the interview approach with dropouts is preferable as far as data quality is concerned. A combination of mail survey, extensive editing phone calls, and interviews would also be advisable. In either case, questionnaires should be simple and straightforward in order to reduce nonresponse bias. A complicated and lengthy questionnaire would probably discourage dropouts from completing the questionnaire. Since dropouts were characterized by low academic ability and low socioeconomic status, the above findings and recommendations are applicable to individuals with those characteristics.

b. Measurement Properties

Two topical areas in measurement were investigated using the NLS data: test bias and reliability of survey maasures. Breland et al. (5007) studied over 14,000 high school seniors from the base-year survey with respect to sociocultural differences in responses to cognitive items from six different cognitive tests: vocabulary, picture-number, reading, letter-groups, mathematics, and mosaic comparisons. Ten different groups were analyzed: American Indians, blacks, Mexican-Americans, Puerto Ricans, other Latin Americans, Oriental Americans, white Northeastern, white North Central, white Southern, and white Western. Proportions of each group responding correctly to each item of each test were computed and then transformed to an

interval scale of delta-values. The delta-values for the white North Central group were then cross-plotted with each of the other groups to yield an elliptical pattern of points for each comparison. The study found that the greatest instabilities were noted among the vocabulary items. These vocabulary instabilities appeared to be attributable to linguistic differences, primarily those existing between Spanish-speaking groups and other groups. Vocabulary items involving cognates were easier for the higher socioeconomic status Spanish-speaking groups than for the white North Central group. It was also observed that reading test items having material relevant to black culture were relatively easier for blacks than were other items in the test battery. The study also found that mathematical knowledge obtainable from everyday life situations, such as how to count money, was not more difficult for minority groups than for the majority group. In contrast, very simple mathematical problems, such as determining the value of square roots of whole numbers less than ten, seemed extraordinarily difficult for minority groups. Since such knowledge, though easily obtained, is usually only obtained in a school setting, what is suggested is that most minority groups in the United States receive seriously deficient schooling in mathematics and/or have limited help at home to supplement their formal schooling.

Another measurement problem examined using the NLS data is the reliability of measures acquired by mail and interview surveys. No single conclusion can be drawn from all measures because of the vast differences in reliability associated with item characteristics. As Conger, Conger & Riccobono (5019) found, factually oriented items are more reliable than subjectively oriented items, and response categories with an ambiguous referent (i.e., "other") are generally unreliable. Lyons & Moore (5043) have similar findings. In addition, individuals' responses regarding parental income and spouse's income are generally unreliable.

Student characteristics are strongly related to reliability of survey responses. In general, low ability respondents are less reliable than middle or high ability respondents; middle SES respondents are less reliable than low or high SES respondents; and women are more reliable than men on nonquantitative items.

Another important variable in relation to response reliability is data collection procedures. As expected, interview-collected data is more reliable than mail-in data. Interviews also provide more complete and consistent data than mail surveys, particularly among members of low SES and low academic ability.

C. Discussion and Recommendations for Future Analyses

The preceding sections have presented an overview of the use of the NLS data by researchers in various organizations and have summarized some major findings from the studies. A general conclusion is that the research efforts to date have focused largely upon the data collection and the preliminary descriptive analyses, as one would have expected from a large-scale study. Analytical studies of the data have just begun and should continue to increase. As the data from later follow-ups become available and more investigations are designed to use variables from the repeated surveys, the advantage of the longitudinal study should gradually surface. Longitudinal analyses will certainly increase, since longitudinal data are difficult to collect by any single researcher, and such data are particularly appropriate for studies of human development. It seems that in future analyses using the NLS data it would be most advantageous to capture the unique features of the longitudinal nature of the data. Many analytic strategies such as path modeling, transition analyses, growth curve or profile analyses, and impact evaluation of certain programs will be able to capitalize on such advantages.

Regarding the subject areas, the preceding sections have also pointed out that, of the variety of research potential in the NLS data, virtually no area, except perhaps access to college, has received adequate research attention. Many researchers are not yet aware of the data source; a greater realization of its potential should accrue as the availability of the data source becomes more widely known. It is possible that data from later follow-ups will enhance the attractiveness of the data base and facilitate a wider interest in utilizing

it. These problems should be reduced as more and more NLS information is released to the public and more follow-up data become available. Another possible reason for inadequate analytic work in certain areas is the inevitable cost of dealing with such a complex and extensive data file. A large-scale analytical work is difficult to carry out without financial support. Additional funding, whether by the National Center for Education Statistics or other sources, would surely promote wider utilization.

While later follow-up data may add additional dimensions to the potential of the data base, the data currently available (i.e., data from the base-year to the second follow-up survey) are already quite comprehensive for various investigations. For example, profiles can be constructed for varying deviant groups such as high-ability members who did not go to college, members who could not find employment, or even members who had children outside of wedlock. It is always interesting and important to ask who such individuals are, what happens to them, and why. The resultant information may help to formulate policy that would ease the problems these people experience.

The data are also sufficiently adequate for fruitful investigations in the areas of vocational-technical development, college performance, transition from high school to work, psychological or attitudinal changes as a result of stress in life, social inequity as exhibited in various educational and vocational attainment, and the formation of family and its impact on career development. What a prospective researcher should do is to study the data base carefully prior to the design of an analysis that can maximize the utility of the data. The possibilities for useful analyses are staggering. With some ingenuity, many new variables from composites of items can be created to tackle some important social, educational, vocational, and psychological issues for which no comparable data exist elsewhere.

The potentials of the data base can be further extended if external data sources are linked to the present files. For example, Tabler & Wagner (4023) have developed a college institutional file in a study of financial aid. Peng (4021) used college selectivity level from Astin's work in the study of college withdrawals and transfers. Crain (5021) developed a high school aggregate file that used data from the Office of Civil Rights. These and other external data sources will certainly broaden the type of questions one may ask about program, institutional, and various contextual effects on students' educational or vocational attainment.

External data sources also provide bases for comparative studies to examine developmental changes over past decades. Peng (1003), for example, has examined the patterns of college entry by comparing results from the NLS and Project TALENT data. Certainly, many more external data sources are applicable (e.g., data on area unemployment; other national studies such as the National Opinion Research Center's longitudinal study of the 1961 college graduates, Eckland's Explorations in Equality of Opportunity, and Sewell's Wisconsin study).

In addition, because of the complexity of the sample design, data collection procedures, and the questionnaires, and because of the diverse characteristics and experiences of the participants, the data base also offers great potential for methodological studies such as comparison of imputation procedures for missing data, effects of response bias, greater efficiency of questionnaire design, and improved procedures for data collection.

The research possibilities in using the NLS data can, in fact, go much beyond what has been mentioned. Other research ideas are explicitly or implicitly stated in many NLS study reports. Carroll & Morrison (5008), for example, have singled out ten high-priority investigations: (1) influence of secondary school, (2) migration and job search, (3) attitudes and career success, (4) segmented labor markets, (5) evaluation of career objectives, (6) nontraditional attendance patterns in postsecondary education, (7) persistence and transition patterns of college parallel students in two-year colleges, (8) development of career aspirations and orientations among young women, (9) consequences of early parenthood, and (10) near-term marital stability. Other reports such as those by Howard (5036), Carroll (2005), Chandler (2006), and Davis (2014) also identified some research priorities. In fact, the list of studies in progress is a good example of the broad

spectrum of investigations for which the NLS data can be utilized.

Despite the great potentials of the NLS data, there are limitations of which one must be aware. For one thing, researchers may often find that some variables relevant to their questions are missing from the data source. This should be expected in using a source that covers a large number of content areas and was designed as a multi-purpose data bank. Although it is sometimes possible to create some variables from related items, analyses may be restricted because of the data. It is thus recommended that a researcher examine the survey instruments carefully before proceeding too far with his analysis plans.

Researchers should also be aware that the data files are rather complex. Previous users have frequently found that the analyses are rather expensive and time consuming simply because of the large volume of data, and this problem will become greater with subsequent follow-ups. Users may flounder if they do not fully understand the file structure and coding scheme before beginning analyses. It is thus recommended that researchers first study the Data File Users Manual carefully. Special attention should be given to the skip patterns of the questionnaire and various codings used for different purposes. In addition, creation of working files containing those variables of interest is advisable. It is much more efficient to work with smaller sets of the data than to use the total data files. In the process of creating working files, some variables can be recoded, grouped, or collapsed. This may include creation of new indices such as psychological attribute measures and some social indicators. After the files are created, it is always important to check the working file with original data by, for example, comparing the frequency counts as provided in the Data File Users Manual (see numbers 5049, 5041 in Chapter IV) or the Tabular Summary of Questionnaire Data (see numbers 4019, 4022, 4024 in Chapter IV).

The NLS sample design requires weighting procedures for obtaining unbiased estimates of the population values. It is recommended that proper weights be selected to make the adjustment for calculating means, proportions, and other descriptive statistics. The weighting requirement may create some problems for studies employing highly analytical procedures such as multivariate analysis. While some computer programs are available for handling such a complex design, many researchers may not have such facilities or resources. An alternative approach would be to block the sample members by sample strata. Primary and final sample strata are included in the data files.

In summary, the NLS data have been and will continue to be used to answer questions relating to educational, vocational, and other social behavioral developments. The NLS is the most current national longitudinal study spanning the school to college to work transition period; its coverage in subject content is broad and a high sample retention rate (over 90 percent) has been maintained. Such a data set is extremely valuable. A considerable amount of analysis effort will be needed to explore fully the great potential of the NLS data. In particular, as more follow-up data become available, analytic strategies to capture the longitudinal nature of the data and to explore data with a well-defined conceptual framework should be encouraged in almost every content area wherever data are available from the NLS. As one member of the NLS analysis site visit team stated in 1975, "the effort to adequately exploit the data actually demands the resources of writers, analysts, technicians, and a variety of other disciplined specialists roughly equal to the resources devoted to collecting the data."

IV. ANNOTATED BIBLIOGRAPHY

Four sections are included in this chapter: (1) annotations, (2) subject index, (3) author index, and (4) sponsor index. The annotation presents an overview of the study and the reference source of the report or paper. Subject index, author index, and sponsor index are provided to facilitate the search for relevant information. If a reprint of a paper or unpublished report is needed, it is preferable to contact the author(s) first.

A. Annotations

Reports, articles, and other documents related to the NLS, each with a brief annotation, are listed below. The lists are grouped into six categories: (1) journal publications, (2) papers presented at professional meetings, (3) unpublished dissertations or papers, (4) government publications, (5) contract or grant reports, and (6) studies in progress. Within each category, the bibliographies are arranged in alphabetical order of the first author's last name. In addition, the sponsor of the study and content classification are attached to each bibliography. The four-digit code preceding each reference is a catalog number later used in the subject index, author index, and sponsor index. The following abbreviations are used in annotations: ASPE—Assistant Secretary for Planning and Evaluation; NCES—National Center for Education Statistics; NIE—National Institute of Education; OPBE—Office of Planning, Budgeting, and Evaluation, U.S. Office of Education.

1000 Journal Publications

1001

Creech, F. R., Echternacht, G. J., Freeberg, N., & Rock, D. The high school class of 1972: Selected characteristics, plans, and aspirations—an overview of findings. *Public Data Use*, 1975, 3 (4), 31-40.

This article summarizes selected characteristics of the high school class of 1972, with special emphases devoted to vocational students and how they may be distinguished from students in other curricula. Three sets of analyses are included:

(1) Educational characteristics of students and selected univariate explorations,
(2) Multivariate explorations distinguishing vocational/technical students from others, and
(3) Student vocational and educational plans and aspirations.

Sponsor: OPBE

Classification: Secondary (student characteristics; vocational/technical programs)

1002

Echternacht, G. J. Characteristics distinguishing vocational education students from general and academic students. *Multivariate Behavioral Research*, 1976, 11 (4), 477-490.

This study identifies distinguishing characteristics of high school vocational students, using factor analysis and discriminant analysis. Results indicate that academic students have higher academic ability than general and vocational students; vocational students are less alienated from school and more work-oriented than general students, and proportionally more women and whites are enrolled in vocational programs than general programs.

Sponsor: OPBE

Classification: Secondary education (student characteristics)

Note: This is a condensed version of a contract report to OPBE (see 5028)

1003

Peng, S. S. Trends in the entry to higher education: 1961-1972. *Educational Researcher*, 1977, 6(1), 15-19.

This study examines the trend in the entry to higher education based upon information drawn from Project TALENT and NLS. Results indicate that the rate of entry into four-year institutions has declined, but the rate of entry into two-year colleges has increased; the combined overall college-going rate has increased for women, but there appear to be no substantial changes for men.

Results also reveal that sex and SES differences in college entry have been reduced and that racial differences can be explained largely on the basis of differences in academic ability and SES among the racial groups.

Classification: Postsecondary (access)
Note: An earlier version of this paper was presented at APA, 1976 (see 2024)

1004
Peng, S. S. An assessment of job training programs in American high schools. *Phi Delta Kappan*, May 1977.

This paper presents background characteristics of job training program participants, and application and evaluation of training. Differences in occupational attainment between participants and nonparticipants are also examined.

Sponsor: NCES
Classification: Secondary education (school effects); vocational education

1005
Peng, S. S., & Bailey, J. P., Jr. Differences between vertical transfers and native students in four-year institutions. *Research in Higher Education*, in press, 1977.

This study examines differences between those who transfer from two-year colleges and those who enroll in four-year institutions immediately after high school in their background variables, individual characteristics, financial aid status, and college integration. Results indicate that transfers tend to come from lower SES families, and to have lower ability, high school achievement, and educational aspiration than native students. Transfers are less likely than native students to receive scholarships, fellowships, or grants, and they show lower achievement in the year after transfer. Implications of these findings are discussed in the paper.

Sponsor: NCES
Classification: Postsecondary (access, performance); financial aid

1006
Polachek, S. W. Sex differences in education: An analysis of the determinants of college major. *Industrial and Labor Relations Review*, in press, 1977.

This study examines sex differences in college majors. Results indicate that after controlling for ability, expected labor market behavior, and other factors, females attending college in 1959 were about eight times more likely to enter the fields of education, nursing, and home economics than engineering, science, or business. Similar sex differences, but smaller in magnitude, were found in 1972 based upon the NLS data.

Sponsor: Ford & Spencer Foundations
Classification: Postsecondary (performance)

1007
Thornton, C. H. The educational attainment process: Some important interaction effects. *The Black Sociologist*, March 1977.

The model of educational attainment used in this analysis is similar to Sewell's model of educational attainment, but does not consider the effects of academic performance and significant others. According to the model, educational attainment is a function of the interrelationships of (1) social structural variables (i.e., race, SES, and ability); (2) educational aspirations; and (3) the hypothesized behavioral outcome—educational attainment.

The analysis makes use of the statistical packaged program NONMET which involves the fitting of a linear model to data arrayed in a complex contingency table using weighted least squares. Analysis, using base-year and first follow-up data from the NLS, is limited to black and white males residing in the southern and northeastern portions of the country.

The following results were obtained: (a) the effects of aspirations on educational attainment for blacks are somewhat smaller than for whites; (b) with socioeconomic status and aspirations held constant, effects of aptitude on educational attainment are more salient for whites; (c) because both aptitude and aspirations are significantly related to educational attainment and the effect of aspirations on the outcome variables is stronger among higher aptitude students, blacks are disadvantated as compared to whites due to the greater likelihood of whites being in the high aptitude category.

Classification: Postsecondary (access)

2001

Bailey, J. P., Jr. *The National Longitudinal Study of the High School Class of 1972.* Paper presented at the meeting of the North Carolina Association for Research in Education, Winston-Salem, North Carolina, May 1976.

This paper briefly summarizes the NLS data collection activities, follow-up questionnaires, and some selected findings from the second follow-up data which include fall 1974 activities, persistence in postsecondary education, participation in jobs, family and community life, quality of life, and life goals.

Classification: General description (summary of survey data)

2002

Bailey, J. P., Jr., & Collins, E. *Entry into postsecondary education.* Paper presented at the annual meeting of the American Educational Research Association, New York, 1977.

This analysis examines the current patterns of entry to postsecondary education. The differences in entry rates between subgroups defined by sex, race, socioeconomic status (SES), and academic ability are described and discussed in reference to previous findings. Results indicate that there are sex, SES, and ability differences in entry rates, and that racial differences in entry rates can be explained largely on the basis of differences in academic ability among the racial groups. It was noted that while high ability blacks seem to be able to enter higher selectivity schools, the majority of blacks attend lower selectivity schools. Within this context, it was concluded that some progress in achieving equality of educational opportunity has been made.

Classification: Postsecondary (access)

2003

Barnes, G. T., & Erickson, E. W. *Advances needed in analysis of the demand for higher education and the need for student financial aid.* Paper presented at the annual meeting of the Southern Economic Association, Atlanta, November 1976.

In this paper, the authors propose that human capital theory has generated fewer than 20 empirical studies of the demand for higher education. The purpose of this paper is to consider the causes and extent of this neglect and to propose several new lines of investigation which will begin to fill in the gaps.

An extension of the student decision model will explain the decisions to:

(1) Enroll part time instead of full time.
(2) Transfer schools.
(3) Choose, or change, the major field of study.
(4) Drop out before graduation.

When completed, demand models based on individual behavior will make it possible to forecast enrollments through the first four years of training by field of study. This conclusion presupposes that demand models based on the observed behavior of entering freshman will be properly specified. (Such an accomplishment is not now attainable.)

The data set from the NLS class of 1972 permits the estimation of a multi-stage model. A continuing interest in policy analysis is apt to be the motivating factor for improvements in the empirical positive economics of the demand for higher education.

Classification: Postsecondary (access, performance); financial aid

2004

Berry, R. M. *The history, objectives, and design of the National Longitudinal Study of the High School Class of 1972.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, February 1973.

The major objectives of the NLS expressed by the author are: (1) to supply data needed by national policymakers on student participation in postsecondary education; (2) to see what paths students take in going through various levels and kinds of postsecondary education as compared to their subsequent activities; (3) to obtain statistics that serve as national benchmarks for special studies of educational programs; and (4) to make longitudinal data available to individual researchers while safeguarding the anonymity

of survey participants.

Classification: Other (study objectives)

2005

Carroll, J. B. *Comments on the papers reported at the symposium on the National Longitudinal Study at the annual meeting of the American Educational Research Association*. New Orleans, February 1973.

The author indicates that the NLS data will answer many questions about the transition from schooling to career that heretofore have been unanswerable. The results will have value for guidance personnel, educational administrators, economists, and policymakers at the national level. It should also make it possible for the individual student to assess his chances of success in the various options open to him. In addition, the NLS should make it possible to track national economic trends with greater precision and to forecast trends with accuracy.

Classification: Other (comment)

2006

Chandler, M. O. *The longitudinal study of educational effects: Design of the follow-up surveys*. Paper presented at the annual meeting of the American Association for the Advancement of Science, San Francisco, March 1974.

This paper presents the design of the follow-up surveys and discusses various aspects, such as potential problems of nonresponse, tracing the base-year group, follow-up strategy, and response rates. The paper also highlights the content of the questionnaires, pointing out some data analyses which NCES plans to do plus some potential analysis in which other sectors of the education community could play a major role.

Classification: Methodology (design, data collection); other (research priority)

2007

Christoffel, P., Fleming, E., & Thompson, B. *Data base description and planned OPBE analyses of the National Longitudinal Study*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, February 1973.

This paper describes the base-year survey data files and research intentions by OPBE in using the data files. In particular, the evaluation of vocational education and federal programs is emphasized.

Classification: Methodology (data file); other (research priority)

2008

Collins, E. F., & Bailey, J. P., Jr. *Survey procedures to maximize participation*. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

This paper discusses the first follow-up survey of the NLS, with emphasis on the field survey procedures employed, the response rate obtained, and the recommendations which were made for procedures to be implemented in the second follow-up.

Classification: Methodology (data collection procedures)

2009

Conger, A. J., Costanzo, P. R., Conger, J. C., & Dunteman, G. H. *Implications of National Longitudinal Study data on self-esteem and locus of control for psychological research*. Paper presented at the annual meeting of the Southeastern Psychological Association, New Orleans, 1976.

The authors describe briefly the scope of the NLS survey, results on self-esteem and locus of control obtained from previous NLS data analysis, and current plans and issues which can be studied by using NLS data on self-esteem and locus of control. The focus of the presentation, however, is not on specific results or plans, but rather on indicating the potential benefits to psychologists and other interested investigators of using such data for confirming laboratory studies and generating further hypotheses.

Classification: Psychological development

2010

Conger, A. J. *Group profiles on self-esteem, locus of control, and life goals*. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., 1976.

This paper presents differences in self-esteem, locus of control, and life goals (work, family-, and community-orientations) among groups defined by basic classification variables (sex, race, SES, ability), and plan, activity, and transition variables. Results indicate that the orderings and differences in psychological attributes are relatively unchanged for basic classification groups. Results however, indicate that subgroups that undergo the greatest changes in activities show more marked differences.

Classification: Psychological development

2011

Davis, J. A. *NLS in a perspective of psychometric history*. Discussant comments presented at the annual meeting of the American Association of the Advancement of Science, San Francisco, 1974.

This paper distinguishes the NLS strategy from that of prior longitudinal studies of educational development, principally Project TALENT, as relying on significant fact-of-life events rather than evoking an array of conceptual traits and scaling metrics out of psychometric experience. Thus, it is specifically behavior oriented, not construct oriented, and causal analyses may more directly involve a specific behavior.

Classification: Other (conceptualization)

2012

Davis, J. A., & Collins, E. F. *Objectives, design, and history of the study*. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

This paper summarizes the history and the objectives of the NLS. Two objectives are emphasized: (1) to provide a data base for policy decision, and (2) to provide social scientists and scholars a data base for advancing knowledge in human development.

Classification: Other (history, objectives)

2013

Davis, J. A. *Potentials of the NLS data base for issue-oriented analyses*. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., 1976.

The paper discusses the potentials of the NLS data, with the emphasis on determining or examining critical issues in educational policy at the federal level.

Classification: Other (potentials of data base)

2014

Davis, J. A., & Corrallo, S. B. *Impact of financial aid on postsecondary entry and persistence*. Paper presented at the annual meeting of the American Educational Research Association, New York, 1977.

The impact of financial aid, particularly from federal sources, on the entrance to and persistence in postsecondary education is examined within the context of family income levels, ability, race, sex, and kind and cost of PSE institution entered. Results indicate that college going, particularly for entrants into four-year institutions, is still related to family income level, but that financial aid tends to equalize "net price" to students (with net price the difference between total cost less family contribution and grant aid), while family contributions vary as expected as a function of family income.

Classification: Postsecondary (access, performance); financial aid

2015

Doermann, H. *The future market for college education*. Paper presented at the colloquium on college admissions, Fontana, Wisconsin, May 1976.

This paper describes annual crops of high school graduates in selected years from 1964 to the present and then projects ahead to 1984. Those high school graduates who go on to postsecondary education within 18 months and those who do not are derived by using the NLS October 1973 follow-up questionnaire. The study discusses constraints and opportunities in student recruitment caused by the shape and size of this traditional market for college education. Colleges will seek to broaden their own effective pools of applicants. The general pressures of study or declining enrollment will place individual colleges under strains they were not designed for. The principal casualty is most likely to be the capacity of these institutions to adapt and to

preserve vitality. Three appendixes are included.

Classification: Postsecondary (access); financial aid

2016

Dunteman, G. H., & Bailey, J. P., Jr. *The National Longitudinal Study: Design and preliminary results*. Paper presented at the annual meeting of the American Association for the Advancement of Science, New York, 1975.

The authors summarize briefly an overview of NLS—from inception, through preliminary analyses, to future plans. Topics include a background of the study and descriptions of the instruments, data collection procedures, data processing, important variable classes, and classification variables. Also discussed briefly are three sets of selected preliminary findings based upon simple unweighted tabulations available at that time: (1) fall 1973 status; (2) spring 1972 plans versus October 1972 activities; and (3) October 1972 activities versus October 1973 activities. The final section of the paper discusses implications and future plans using a simple path analysis model involving financial aid as an example of how the impact of a factor in the activities of the 1972 high school seniors can be evaluated.

Classification: General description (summary of survey data)

2017

Dunteman, G. H., & Peng, S. S. *Transfers among postsecondary education institutions*. Paper presented at the annual meeting of the American Educational Research Association, New York, 1977.

The issues covered in this report include the extent of transferring, factors related to transferring, and differences between the four-year college persisters and those who transferred from two-year colleges. Four types of transfer students are examined in relation to the issues: The 4→4 transfers, the 4→2 transfers, the 2→2 transfers, and the 2→4 transfers. Major findings include: (1) one-fourth of the two-year college students transfer to four-year institutions, and 19 percent of the four-year college students move to other colleges two years after initial matriculation; (2) men do not have a higher 2→4 transfer rate than women; and (3) the 4→4 transfers generally have higher SES and achievement scores than persisters. In view of increasing numbers of transfer students, it is recommended that future studies try to identify transfer students' problems in the areas of adjustment to new environments, selection of colleges, and refinement of career plans.

Classification: Postsecondary (performance)

2018

Fleming, E. L., Maroney, R., & Straser, M. L. *The vocational re-evaluation of the National Longitudinal Study of the High School Class of 1972—Base-year*. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

This paper describes analyses in vocational education to explore the NLS data. The following sections are included: (1) educational characteristics of high school students; (2) differences between vocational/technical students and others; (3) vocational and educational plans and ambitions.

Classification: Secondary (student characteristics); vocational/technical education

2019

Gilford, D. *The noncollegiate sector: Statistical snap-shots of adult continuing education*. Talk presented at the Association of American Higher Education, proceedings, 29th National Conference of the AAHE, Chicago, March 1974.

This paper describes the character and extent of education in some noncollegiate postsecondary institutions and presents data on the educational and employment aspirations of the high school class of 1972.

Classification: Secondary (student characteristics)

2020

Hilton, T. L., & Glaser, E. *Selected results and description of data file*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, February 1973.

This paper, presented as part of the symposium on the National Longitudinal

Study, describes the data file and highlights results from the base year.

Classification: General description (summary of survey data)

2021

Kroll, A. K. *Discussant comments regarding NLS*. Presented at AERA symposium at the annual meeting of the American Educational Research Association, New Orleans, 1973.

This summary covers issues concerning implications for counselors, the influencing of guidance practice, career pattern data, and various unresolved philosophical issues whereby the NLS could be used to provide information for federal policy development in the field of education.

Classification: Other (significance of NLS study)

2022

Levinsohn, J. R., & Riccobono, J. A. *A description of the merged base-year/first follow-up data file*. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

This paper provides a general description of the contents of the NLS tape package available for use by the general research community.

Classification: Methodology (data file construction)

2023

Nisselson, H. *Sampling considerations in the design of LSEE*. Paper presented at the 140th meeting of the American Association for the Advancement of Science, San Francisco, March 1974.

This report describes the design and selection of the national probability sample of high school seniors. The descriptions include sample size, design approach, alternative school-based designs (sampling of schools, increasing the sampling of low-income seniors, sampling within schools), and impact of the sample design for analysis.

Classification: Methodology (sample design)

2024

Peng, S. S. *Some trends in the entry to higher education: A comparison between NLS and Project TALENT*. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., 1976.

This study examines the trend in the entry to higher education based upon information drawn from Project TALENT and NLS. Results indicate that the rate of entry into four-year institutions has declined, but the rate of entry into two-year colleges has increased; the combined overall college-going rate has increased for women, but there appeared to be no substantial changes for men. Results also reveal that sex and SES differences in college entry have been reduced and that racial differences can be explained largely on the basis of differences in academic ability and SES among the racial groups.

Classification: Postsecondary (access)

Note: Revised version is published in journal (see 1003)

2025

Peng, S. S., & Fetters, W. B. *College student withdrawal: A motivational problem*. Paper presented at the annual meeting of the American Educational Research Association, New York, 1977.

This study investigates the process of withdrawal from four-year and two-year institutions of higher education. Data were drawn from the base year and the first and second follow-ups of the National Longitudinal Study of the High School Class of 1972. Results indicate that (1) women students are more likely to withdraw only in two-year colleges; (2) white students are more likely than black students to withdraw when other variables are controlled; (3) high school program, percentile rank, college grades, and educational aspiration account for most variance of withdrawal behavior; and (4) financial aid does not have significant effect on college persistence. The data show that withdrawal is more a motivational than a financial problem.

Classification: Postsecondary (performance); financial aid

2026

Peng, S. S., Dunteman, G. H., & Fetters, W. B. *Selected results from the base-year and the first follow-up surveys.* Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., 1975.

This paper summarizes some of the findings from cross-sectional and longitudinal analyses. The major themes are the profiles of the class of 1972 in their senior year, their educational and vocational activity states in October 1973, plan fulfillment, and activity state transitions from October 1972 to October 1973. On-going analyses and future analysis plans are also discussed in the paper.

Classification: Postsecondary (access); labor-force participation

2027

Rhett, H. *The National Longitudinal Study of the High School Class of 1972: Methods and problems in maximizing participation.* Paper presented at an AERA symposium, New Orleans, February 1973.

This paper discusses problems in maximizing school participation. Problems include communication through the state coordinators and time schedule. A few recommendations are included for the conduct of any similar large-scale national sample study.

Classification: Methodology (data collection procedures)

2028

Riccobono, J. A., Bailey, J. P., Jr., & Dunteman, G. H. *Money and college: Differences in ability and SES.* Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., 1976.

This paper presents some descriptive statistics relating to SES and ability and patterns of students' financial support. Data show that low SES students are more likely to fulfill their plans for federal aid than high SES students; that four-year college students are more likely to receive financial aid than two-year college students; and that SES is negatively related to federal aid recipients and ability is positively related to nonfederal aid recipients.

Classification: Postsecondary (access); financial aid

2029

Rice, L. D. *Race, poverty, and the colleges.* Paper prepared for the Conference on Racial and Ethnic Data of the Institute for the Study of Educational Policy, Howard University, February 1976.

It is the fundamental proposition of this paper that the data accumulated are adequate to demonstrate that the lot of blacks in American society is not equal to the lot of whites, and that what is missing are ideas and the kind of information which can guide public policy in directions most likely to be helpful in realizing full equality of opportunity for the blacks who are not yet of high school age—one-third of all blacks.

Data on blacks came from reports of the Bureau of the Census and the first follow-up data from the NLS.

At least three information gaps need to be filled:

(1) What are the causes of the accelerating numbers and percentages of female-headed families?
(2) What are the decisive forces at work in determining whether a given high school graduate goes on to college, and at what time during the school years do those forces come into play?
(3) What are the operative reasons so many young people, black and white alike, enter but never finish college?

Classification: Postsecondary (access, performance)

2030

Schrader, R. G. *Remarks: National Longitudinal Study at an AERA Symposium.* New Orleans, February 1973.

The author focuses on educational needs which he hoped the NLS would meet: identifying learner needs, identifying a value system for public elementary and secondary education, which, in turn, should lead to the

development of measurable performance objectives. The author feels that the NLS should help join together in cooperative efforts the public and private elementary and secondary schools, the institutions of higher education, the trade and technical schools and the state department of education.

Classification: Other (significance of NLS)

2031

Tabler, K. A. *National Longitudinal Study of the High School Class of 1972. Research and information on employment and training: Local, state, and federal communications, results and utilizations.* Symposium cosponsored by Pennsylvania State Board of Education and U.S. Department of Labor, Region III, Hershey, Pennsylvania, June 9-10, 1975.

This paper presents a broad overview of the NLS and identifies some relevant data about occupational planning and outcomes to illustrate the potential use of the data base.

Classification: Labor force participation

2032

Tabler, K. A., Berls, R., & Cornelson, L. *Philosophy of the design and development of the questionnaire.* Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

This paper describes procedures used for developing the second follow-up instruments.

Classification: Methodology (instrumentation)

3000 Dissertations or Prepublished Papers

3001

Ahern, D. *Equality of educational opportunity—National Longitudinal Study of the High School Class of 1972.* Unpublished doctoral dissertation, College Park, Maryland: University of Maryland, 1975.

This study investigates the equality of resources in relation to equality of outcomes. Variables involved are school facilities, teacher characteristics, learning resources, library, SAT scores, and measures of student self-esteem and locus of control.

Classification: Secondary (school effect)

3002

Derrick, F. W. *The work decision of college students.* Unpublished doctoral dissertation, North Carolina State University, 1976.

The objectives of this thesis are to analyze the factors which determine an individual's participation in the labor market as defined by working during the academic year and/or during the summer while enrolled in higher education as a full-time student, and to obtain empirical estimates of two important parameters embedded in the life cycle model of human capital accumulation.

Data were drawn from the National Longitudinal Study field test (the first two surveys) of the class of 1971 and the National Longitudinal Study, base year and first follow-up. The data sets include only full-time students at public four-year colleges or universities during the first year after graduation from high school. The data set of the class of 1971 was used to create hypotheses to be tested. Study of the variables affecting the individual's decision to work or not to work was based on a finding in the life cycle model developed by Thomas Johnson. Johnson's analysis implies that an individual will not work while a full-time student, if $\beta_1 A - \beta_2 w \geq 0$, where A is an unearned allowance per period, w is a fixed wage rate which the individual can earn while a full-time student, and β_1 and β_2 are the aforementioned production function parameters. Logit analysis was used in the test of this prediction from the life cycle model. It was found that the direct aid received by the student, the maximum wage, and the amount of state subsidy per student have a significant effect on the full-time student's work decision. The individual's sex and race were found to be shifters which have a significant effect on the probability that the individual will work.

Classification: Labor force participation

3003

Eckland, B. K. *Status attainment in education: Race and sex differences in the basic attainment process and in self-esteem and locus of control.* Chapel Hill, North Carolina: University of North Carolina, September 1975 (Abstract).

This paper summarizes results of analyses regarding race and sex differences in the basic educational attainment process and in self-esteem and locus of control. From the first set of analyses, results indicate that more male students enter college although female students get better high school grades, and that blacks have higher college attendance than whites when SES and ability are controlled. From the second set of analyses, it was found that males and females do not differ significantly in self-esteem, but females are significantly higher in locus of control than males, and that while blacks are considerably lower than whites in locus of control, blacks have higher self-esteem. The difference in locus of control increases while the difference in self-esteem narrows one year after leaving high school.

Classification: Postsecondary (access)

3004

Fetters, W. *Realism of job aspirations of class 1972 seniors.* Information memo. NCES, Washington, D.C., March 1974.

This memo contains a table with information concerning the differences in the distributions of job aspirations and demands.

Classification: Labor-force participation

3005

Gruber, J. E. *Factors influencing the self-esteem and locus of control of adolescents: Results from the NLS first year follow-up.* Unpublished doctoral dissertation, University of North Carolina, 1976.

This study investigates the differences in self-esteem and locus of control among adolescents at two points in time: their senior year in high school (spring 1972) and a year and a half after high school graduation (October 1973). These differences were analyzed within four race-by-sex groups: black males and females and white males and females.

Results indicate that high school blacks have higher self-esteem but lower locus of control than whites, and women have lower self-esteem but higher locus of control than men. After high school, whites generally increase while blacks decrease in self-esteem, regardless of their post-high-school status.

Classification: Psychological development

3006

Jackson, G. A. *Student demand for postsecondary education.* Cambridge, Massachusetts: Harvard Graduate School of Education, September 1976 (Preliminary Report).

The purpose of this study is to discover what effect manipulatable characteristics of institutions—primarily price and financial aid—and demographic trends have on students' decisions for college education. The analyses were based upon a sample of 5,179 individuals from the NLS. The general model was: application = place, background, school, student, friends, occupation, and aspirations. Results show that student and plans are most important in determining students' postsecondary decisions.

Classifications: Postsecondary (access); financial aid

3007

Johnson, T. *Time in School: The case of the prudent patron* (Paper No. 4594, Journal Series of the North Carolina Agricultural Experiment Station). Raleigh, North Carolina: North Carolina State University, Department of Economics and Statistics, August 1976.

This paper explores the properties of a life cycle model of human capital accumulation under the assumptions that the individual cannot borrow to finance his schooling but may receive an allowance while specializing. This allowance is constant, regardless of the amount of human capital accumulated, and should be interpreted to include subsidies to tuition as well as funds to cover a "subsistence" level of living. It is also assumed that the specializing student cannot rent his human capital for the same rate as he could if he were not specializing. This produces the empirically familiar "notch" in the fraction of each year spent investing in human capital.

Numerical estimates of the responsiveness to changes in parameter values indicate that, in more cases, increasing the student wage has little effect on both time spent in school and income later in life. On the other hand, increasing the allowance does increase the time spent in school. However, with ability and endowment held constant, increasing the allowance "twists" the life-time earnings profile, increasing net earnings early in life but decreasing net earnings past age 45.

Empirical research is continuing with the larger sample of the high school graduating class of 1972, with which the author hopes to improve the understanding of the market work decision of students.

Classification: Labor force participation

3008

Loxley, W. *Factoral concepts in comparing subcultural resource competition models for American ethnics.* Dissertation proposal (draft abstract). Chicago, Illinois: University of Chicago, 1976.

The purpose of this study is to investigate the structure of subpopulations with respect to patterned resources necessary for successful competition in mainstream American society.

Roughly 5,000 students representing six major ethnic cleavages in U.S. society along with 3,692 whites representing the base group will make up the sample. Low SES and middle SES groups will be analyzed for the varying environmental inputs which account for individuals in the various ethnic divisions, combining ability, attitudes, and personality factors to replicate by imitation a hypothetical core culture pattern symbolic of the American mainstream.

A factor analytic model consisting of five factors will be examined for the white middle class taken as representative of American core culture. The five factors are: an inherited bond factor, a culturally acquired bond factor, an attitudinal disposition to success factor, a personality trait factor, and an educational utilization factor.

Policy implications derivative of such a model should suggest alternative ways of restructuring incentive matrices via rearranging reward structures to expand preference structures for those individuals whose patterns of factor reinforcement have nonexistent or negative effects on one another.

Classification: Other (quality of adult life)

3009

Mullen, J. K. *Effects of finance reform on the accessibility of low-income students to higher education and the viability of private institutions in New York State.* Binghamton, New York: State University of New York, 1976.

This research analyzes the efficiency of the present and alternative financing schemes in attaining the goals of state subsidation of higher education. In particular, the effect on total college enrollment and accessibility to higher education forthcoming from hypothetical financing changes are investigated. In addition, the equity implications of the financing alternatives are analyzed by allocation of the benefits accruing to each income class for each financing scheme. The allocation of taxes to income classes for any financing scheme is assumed to remain the same since only financing alternatives that result in constant state appropriations to higher education are considered. Regression analysis is the basis of the statistical model, and individuals are used as the unit of observation.

This project enables the investigator to discern what types of income-related grants would redistribute the most income to the lowest income classes, which types of grants would maximize total enrollment, and which types of grants would make the private educational system most viable.

Classification: Postsecondary (access); financial aid

3010

Pepin, A. *Predicting postsecondary enrollment by cognitive and noncognitive variables.* Washington, D.C.: National Center for Education Statistics, March 1977. (Draft abstract of dissertation proposal)

The author states that it is possible to predict postsecondary enrollment by cognitive and noncognitive (self-concept, locus of control) variables and to postulate who will go into a particular activity state: enroll in college, not enroll in college, enroll in vocational

education, withdraw from college, etc. Emphasis will be on noncognitive variables, highlighting their effect on postsecondary enrollment.

Classification: Postsecondary (access)

3011

Schmidt, W. *Job expectations of the high school class of 1972*. Michigan State University at East Lansing, 1977.

Based upon the base-year and the second follow-up survey data, it was found that, on the average, young adults two and one-half years after high school graduation have not substantially changed their occupational expectations. It was also found that percentages for each of the occupational categories differ dramatically from the total labor force needs projected by the U.S. Department of Labor by the time those people are 30 years old.

Classification: Labor force participation

3012

Schorr, J. K. *Great expectations: An examination of persistence and early attrition among high school seniors aspiring to the high status professions*. Abstract of dissertation proposal. Deland, Florida: Stetson University, September 1976. (Abstract)

The central hypotheses in this research will focus on the selection factors which operate among high school seniors who aspire to the high status professions such as medicine, law, and college teaching. Particular attention will be paid to female, black, and low SES aspirants in order to determine whether early attrition and loss of aspiration can account for their underrepresentation in these professions. If this is found to be the case, the mechanisms of this attrition process will be carefully considered.

Classification: Postsecondary (performance)

3013

Simonds, J. T. *Study of future enrollment patterns in higher education in the Pittsburgh region and factors which generate particular occupational aspirations*. Pittsburgh, Pennsylvania: University of Pittsburgh, November 1976. (Abstract)

This project replicates the NLS base-year study among the Pittsburgh regional graduating class. By comparing these survey results with the national data, it is possible to identify particular enrollment patterns in Pittsburgh which differ from national patterns. For example, the social support and motivation provided by the blue collar family has an especially strong effect in this area on decision to attend college.

Related to this, the center is using the NLS data alone to study the factors which generate particular occupational aspirations. Such aspirations are conceived as the product of two perspectives—the position of the individual and his family in the large social system, and his position in the small system of the school and the community. Aspirations derived largely with respect to the latter appear to be overinflated or inconsistent, thus leading the individual into inappropriate courses of action, with consequent failure and frustration.

Classification: Postsecondary (access)

3014

Thomas, G. E. *Race and sex effects in the process of educational achievement*. Unpublished doctoral dissertation, University of North Carolina, 1975.

This study investigates the attainment process of blacks and women. A subsample of black and white males and females was drawn from the NLS, and a four-variable model—SES, academic ability, high school class rank, and college attendance—was used. Three sets of analyses were performed—parallel regression analysis, path analysis with race and sex as dummy variables, and Goodman's nonparametric analysis. Results include: (1) when background variables are controlled, blacks are more likely than whites to attend college; (2) more white males than white females go to college, but among blacks the college-going rate is higher for females.

Classification: Postsecondary (access)

3015

Thomson, D. R. *Postsecondary students: Financial rights, choices, recommendations*. 1976 Statewide Plan. Albany, New

York: Office of Postsecondary Research, June 1976.

The New York Department of Education utilized a subsample of the NLS comprising over 1,500 students who graduated from New York State high schools to aid in formulating policy recommendations for the 1976 statewide plan.

Classification: Postsecondary (access); financial aid

3016

Thornton, C. H. *Black-white differences in educational attainment: A replication and expanded interpretation*. Chapel Hill, North Carolina: University of North Carolina, October 1976.

The analysis of this study was limited to black and white males in the National Longitudinal Study. Variables used include SES, ability, educational expectations, educational attainment, significant other influence, and self-esteem. The model holds that the process of educational attainment is a function of the simultaneous interaction between one's socioeconomic background and one's ability, a specific set of intervening factors (i.e., academic performance, influence of significant others (SOI), educational expectations, self-esteem, and the hypothesized behavioral outcome—educational attainment).

The findings show that the process of educational attainment is much more feebly articulated for blacks within the framework of the "basic" model than is the case for whites. This is aptly shown by the coefficients of determination for the separate analysis for blacks and whites when the amount of explained variation for most endogenous variables among whites is about twice that for blacks. It was also found that race, as a main effect, is important throughout each stage of the educational attainment model. Further, the analysis shows that the dynamics of attainment differ by race such that the impact of interpersonal influences and subjective orientations emerges as the only important direct influences on educational attainment for blacks. This is in stark contrast to the role played by both the background and subjective variables for whites.

Classification: Postsecondary (access)

4000 Government Publications

4001

Eckland, B. K., Bailey, J. P., Jr. *Capsule description of second follow-up data*. (NCES 77-265) Washington, D.C.: U.S. Government Printing Office, 1977.

This report is one in a series of preliminary reports designed to highlight selected findings in educational, career, and occupation development. It is a summary of some descriptive information about educational and work activities since leaving high school taken from the analysis of responses to the Second Follow-up Questionnaire. There is a concentration on participation in postsecondary education and the world of work because, among the many other issues which could be addressed with the NLS data, they seem to have the most pervasive, important, and meaningful impact on the lives of young adults.

Classification: General description (summary of survey data)

Note: This is a revised version of a contract report (see 5029)

4002

Fetters, W. B. *A capsule description of high school seniors—base-year survey* (DHEW-OE 74-11116). Washington, D.C.: U.S. Government Printing Office, 1974.

Part I of this two-part report describes the planning and development of the NLS. Part II presents a brief description of the characteristics, plans, and attitudes of the students as they are about to leave high school.

Classification: General description (summary of survey data)

4003

Fetters, W. B. *Student questionnaire and test results by sex, high school program, ethnic category, and father's education*

(NCES 75-208). Washington, D.C.: U.S. Government Printing Office, 1975.

This report describes group differences in the high school experiences, attitudes, opinions, and plans of the class of 1972 seniors. The groups were formed by one-way classifications of sex, high school program, ethnic membership, and father's education.

Classification: Secondary education (student characteristics)

4004

Fetters, W. B. *Comparative profiles one and one-half years after graduation* (NCES 76-220). Washington, D.C.: U.S. Government Printing Office, 1976.

This report presents tables summarizing some of the first follow-up survey data. Statistics are presented for the total group, and for the two sexes. Tables are also presented by racial-ethnic group, academic ability, SES, high school program, and region.

Classification: General description (summary of survey data)

4005

Fetters, W. B. *Change in attitudes one and one-half years after graduation* (NCES 76-227). Washington, D.C.: U.S. Government Printing Office, 1976.

This report describes the changes of high school graduates during a period of about one and one-half years with regard to their views of themselves, sense of control of their environment, and their orientation toward work, community, and family goals. Change percentage points are presented for the population as a whole, and for groups classified by sex, race, SES, academic ability, high school program, and geographic region.

Classification: Psychological development

4006

Fetters, W. B. *Student Questionnaire and test results by academic ability socioeconomic status, and region* (NCES 76-235). Washington, D.C.: U.S. Government Printing Office, 1976.

Student questionnaire and test data from the base-year survey are summarized in this report for the total population and for groups classified by academic ability, socioeconomic status, and region of the country in which the high school is located.

Classification: General description (summary of survey data)

4007

Fetters, W. B., Dunteman, G. H., & Peng, S. S. *Fulfillment of short-term educational plans and continuance in education: October 1972 and October 1973* (NCES 76-218). Washington, D.C.: U.S. Government Printing Office, in press, 1977.

This report presents basic descriptive analyses of the planning and activity status of the NLS sample members. The following questions are addressed: (1) What were the young people's plans shortly before high school graduation? (2) What were they doing shortly after graduation? (3) How many fulfilled their plans? (4) What were they doing one and one-half years after graduation? (5) How many changed from one activity to another?

Classification: Postsecondary (access); labor-force participation

Note: This is a revised version of a contract report (see 5025)

4008

Grant, W. V., & Lind, C. G. *Digest of education statistics, 1975 edition* (NCES 76-211). Washington, D.C.: U.S. Government Printing Office, 1976.

The purpose of this annual publication is to provide an abstract of statistical information dealing with American education from prekindergarten through graduate school. Tables and information based on the NLS data appear on pages 61, 62, and 171.

Classification: Secondary education (student characteristics); postsecondary (access); labor-force participation

4009

National Center for Education Statistics. Immediate education plans of high school seniors, class of 1972. *Advance Statistics for Management Bulletin* (Number 17). Washington, D.C.: National Center for Education Statistics, March 1974.

This bulletin reports that (1) 59 percent of high school seniors plan to continue their education as their major activity the year after high school; (2) of those in academic programs, 84 percent plan to continue education; in vocational/technical curricula, only 33 percent; (3) the proportion for black students (56 percent) is a little less than for white students (60 percent); for males (59 percent), a little less for females (61 percent).

Classification: General description (summary of survey data)

4010

National Center for Education Statistics. *A capsule description of first follow-up survey data* (NCES 76-216). Washington, D.C.: National Center for Education Statistics, 1975.

This report is designed to present basic descriptive analyses of the NLS data. Its purpose is to give summative information about the young adults' activity status, marriage and family planning, mobility, aspirations and plans, postsecondary educational experience, work experience, and relevancy of high school job training and counseling service. Data are summarized for major subgroups defined by sex, race, ability, socioeconomic status, high school program, and region. The last pages present highlights abstracted from the report.

Classification: General description (summary of survey data)

4011

National Center for Education Statistics. *The condition of education* (NCES 75-412). Washington, D.C.: U.S. Government Printing Office, 1975.

In *The condition of education*, the following tables based on the NLS are included:

Table 22—Aspirations and attitudes of high school seniors, by type of curriculum: spring 1972 (page 144).

Table 61—Percentage of students enrolled in postsecondary education receiving financial aid, by family income and type of aid, for high school graduating class of 1972: 1972-73 (page 185).

Table 68—Enrollment in postsecondary education (PSE) by ability and type of institution for high school class of 1972: October 1972 (page 191).

Table 70—Participation in postsecondary study or nonstudy activities by sex, race, and family income, for high school class of 1972: October 1973 (pages 194-195).

Table 71—Persistence of full-time students in postsecondary education (PSE) for high school class of 1972: October 1972 and October 1973 (page 196).

A discussion of the NLS is on pages 220-221.

Classification: Postsecondary (access)

4012

National Center for Education Statistics. One and one-half years after graduation: The class of 1972. *Advance Statistics for Management Bulletin* (Number 21). Washington, D.C.: National Center for Education Statistics, June 1975.

This bulletin presents selected results of the first follow-up survey of the National Longitudinal Study of the High School Class of 1972. It describes these young adults approximately one and one-half years after high school graduation. Statistics descriptive of the population as a whole are often followed by figures applying to given subgroups classified by high school program, race, ability, socioeconomic status (SES), or sex.

Classification: General description (summary of survey data)

4013

National Center for Education Statistics. Realization of postsecondary education plans: First and second year. *Advance Statistics for Management Bulletin* (Number 20). Washington, D.C.: National Center for Education Statistics, March 1975.

This bulletin reveals that 59 percent of the class of 1972 planned to continue their education either in college or in a trade or business school as their major activity the year after high school. Of those students who

said that the largest share of their time in the year after they leave high school would be taken up by attending school, 82 percent reported they actually were attending a postsecondary school in October 1972; a somewhat smaller proportion, 69 percent, reported continuing their postsecondary education in October 1973. The rest of this report deals only with the students who had indicated those educational plans in spring 1972. It shows the variations in their continuation in postsecondary school attendance as related to sex, high school program, racial-ethnic background, ability level, and socioeconomic status. In every category, the continuation rate dropped sharply for October 1973.

Classification: Postsecondary (access)

4014

National Center for Education Statistics. Effectiveness of high school job training: Assessment of the class of 1972 one and one-half years after graduation. *Advance Statistics for Management Bulletin* (Number 22). Washington, D.C.: National Center for Education Statistics, August 1975.

Statistical highlights on educational issues presented in this bulletin are (a) distribution of high school seniors by program of study, (2) job training received in high school, (3) employment in jobs where expected to use training, and (4) satisfaction with training of those who worked in training-related jobs.

Classification: Labor-force participation

4015

National Center for Education Statistics. *Attrition from college: The class of 1972 two and one-half years after high school graduation* (NCES 77-266). Washington, D.C.: National Center for Education Statistics, September 1976.

This bulletin presents some findings about attrition from two-year and four-year colleges based on NCES's National Longitudinal Study of the High School Class of 1972. Attrition is generally defined as withdrawal from college without completing a degree; in this bulletin, students who had attended school in the first two years but did not attend school in fall 1974 (and had not completed a two-year program) are defined as withdrawn. The four-year colleges lost 23.5 percent of their entrants. Among two-year college students, 39.3 percent withdrew without completing a degree, so two-year colleges clearly lost more students than four-year colleges. Private schools and schools with higher than average test scores for entering students had lower attrition rates. The majority of students who leave college report doing so for nonacademic reasons. Those students who work full-time withdraw at nearly double the rate of those with a part-time job or no job at all. Black and Hispanic students withdraw somewhat more frequently than white students, but in four-year colleges these differences disappear when adjusting for socioeconomic background.

Classification: Postsecondary (performance)

4016

National Center for Education Statistics. *The condition of education* (NCES 76-400). Washington, D.C.: U.S. Government Printing Office, 1976.

In the 1976 report, the following tables are included:

Table 4.3—Participation of high school class of 1972 in postsecondary education, by race, sex, and parental income level: 1972 (page 219).

Table 4.4b—Percentage of entrants into four-year institutions of higher education, by socioeconomic status, ability level, and sex: fall 1972 (page 220).

Table 4.5—Changes in postsecondary participation of the high school class of 1972: October 1972 to October 1973 (page 221).

Table 4.21—Enrollment in institutions of higher education, by family income: 1972 (page 232).

Table 5.2—Occupational objectives of high school seniors, two and one-half years after graduation, by occupation and sex, high school class of 1972: October 1974 (page 238).

Table 5.3—Percentage of employed youths answering "applies to me" statements regarding satisfaction with training one and one-half years after graduation, by high school program of study and by sex, high school class of 1972: fall 1973 (page 239).

Classification: Postsecondary (access)

4017

National Center for Education Statistics. *The condition of education* (NCES 77-400). Washington, D.C.: U.S. Government Printing Office, 1977.

In the 1977 report, the following NLS tables are included:

Chart 4.15—Participation in postsecondary education of the high school class of 1972: fall 1974: white (page 86.)

Chart 4.16—Participation in postsecondary education of the high school class of 1972: fall 1974: black (page 87).

Chart 4.17—1974 Enrollment status of 1972 freshman class, by educational aspirations prior to entry (page 88).

Chart 4.18—Characteristics of freshmen receiving federal financial aid (page 89).

Table 4.14—Percentage distribution by college-going status, of class of 1972 high school graduates: 1972, 1973, and 1974 (page 199).

Table 4.15—Participation rates in postsecondary education for the high school class of 1972, by race, ability level, and socioeconomic status: fall 1972, fall 1973, and fall 1974 (page 200).

Table 4.18—Full-time freshmen students receiving financial aid: School year, 1972-73 (page 202).

Table 4.27—Enrollment status in postsecondary education of the high school class of 1972, by race or ethnic origin: October 1972, October 1973, and October 1974 (page 211).

Classification: Postsecondary (access, performance)

4018

Office of Planning, Budgeting, and Evaluation. *Annual evaluation report on programs administered by the U.S. Office of Education, FY 1975*. Washington, D.C.: Office of Planning, Budgeting, and Evaluation, 1976.

The NLS data were used by OPBE to assess the impact of student assistance programs. The NLS data appear on pages 28-38. A description of studies on vocational education appears on pages 228, 229, and 233.

Classification: Postsecondary (access), financial aid, vocational/technical education

4019

Peng, S. S., & Holt, M. M. *Tabular summary of second follow-up questionnaire data* (NCES 77-263). Washington, D.C.: U.S. Government Printing Office, in press, 1977.

Tabular results are presented for each item in the questionnaire. Results are given for the total sample as well as for the subpopulations defined by sex, race, ability, SES, high school program, region, sex by race, sex by ability, sex by SES, sex by high school program, sex by region, race by ability, race by SES, race by high school program, and race by region. Actual and weighted subpopulation sizes are presented along with the percent distributions of responses for each item for these groups.

Classification: General description (summary of survey data)

4020

Peng, S. S., Ashburn, E. A., & Dunteman, G. H. *Withdrawal from institutions of higher education* (NCES 77-264). Washington, D.C.: U.S. Government Printing Office, in press, 1977.

The primary purpose of this study is to estimate withdrawal rates, to examine the withdrawal process, and to describe what happens to those students after leaving college. Withdrawals are classified into academic and nonacademic categories, with the former being those withdrawals who reported some academic problem or a below C grade point average. Major findings include: (1) two-year colleges have higher withdrawal rates than four-year colleges; (2) SES, high school program, high school grades, and educational aspirations are important factors of college withdrawal; (3) whites have a higher withdrawal rate than blacks when other variables are controlled; (4) sex differences in college withdrawals are negligible; (5) financial aid seems to have significant impact on college persistence only among four-year college students who have low SES but high aspirations; and (6) withdrawal does not have negative effects on psychological development. It is

concluded that college withdrawal is not necessarily bad for some students, and that more effective counseling services in high school and college are needed.

Classification: Postsecondary (performance); financial aid

Note: This is a revised version of a contract report (see 5055)

4021

Peng, S. S. *Transfer students among institutions of higher education* (NCES 77-250). Washington, D.C.: U.S. Government Printing Office, in press, 1977.

This study was designed to achieve the following objectives:

(1) To describe the extent of transfers in institutions of higher education, and to reveal differences in transfer rates among various types of institutions, and biosocial groups;

(2) To examine differences between transfers and nontransfers in four-year and two-year institutions, and differences between 2→4 transfers and four-year college nontransfers in background variables, financial aid status, satisfaction with college education, and academic performance;

(3) To describe students' self-reported reasons for changing schools; and

(4) To test the incongruency hypothesis between the student and the institution as reasons for transferring.

It was found that the 2→4 transfers constitute the largest group, and that two-year colleges may serve as warm-up places for many students to obtain college education.

Classification: Postsecondary (performance); financial aid

Note: This is a revised version of a contract report (see 5054)

4022

Tabler, K. A. *Tabular summary of first follow-up questionnaire data* (NCES 76-212). Washington, D.C.: U.S. Government Printing Office, 1976.

The tabular results (codebook) of the First Follow-up Questionnaire are presented for each item in the questionnaire. Results are given for the total sample as well as for subpopulations defined by sex, race, ability, SES, high school program, region; sex by race, sex by ability, sex by SES, sex by high school program, sex by region; race by ability, race by SES, race by high school program, and race by region. Actual and weighted subpopulation sizes are presented along with the percentage distributions of responses for each item for these groups.

Classification: General description (summary of survey data)

4023

Tabler, K. A., & Wagner, A. P. *National Longitudinal Study of the High School Class of 1972: Distribution and packaging of student financial aid: Some evidence from the survey of the high school class of 1972*. Washington, D.C.: National Center for Education Statistics, February 1977.

This report addresses two questions: (1) What is the distribution of federal student aid by socioeconomic status, racial/ethnic group, student achievement/ability, and type of institution? (2) How are federal student aid funds combined with aid from other sources into student financial aid packages? Based upon the base-year and first follow-up NLS data, it was found that (1) low SES and minority students are more likely to be recipients of all federal aid taken together, and federal loan borrowers, college work-study recipients, and federal transfer benefit recipients in particular; (2) federal grants and scholarships tend to be distributed according to student ability; (3) public two-year and vocational institutions lack financial aid expertise; (4) students attending private four-year colleges receive most types of federal aid; and (5) recipients of combined federal/nonfederal aid packages tend to be lower SES or minority students, while recipients of nonfederal aid only tend to be higher SES students.

Classification: Postsecondary (access); financial aid

4024

Thompson, B. W. *Tabular summary of student questionnaire data, Volumes I and II*. (74-227a and 74-227b). Washington, D.C.: U.S. Government Printing Office, 1974.

This report contains the base-year survey questionnaire data for each item. Statistics are given for the total sample as well as subgroups defined by sex, high school program, race, and father's education, and by the four classification variables combined. Actual and weighted statistics are presented.

Classification: General description (summary of survey data)

5000 Grant or Contract Reports

5001

Bailey, J. P., Jr. *National Longitudinal Study of the High School Class of 1972: First follow-up survey final methodological report.* Research Triangle Park, North Carolina: Research Triangle Institute, Center for Educational Research and Evaluation, March 1976.

This is the formal report of activities conducted in carrying out the study. In this sense it is methodological, historical, and descriptive in nature, rather than technical and analytical. The numerous reports of the latter character, produced in conjunction with the study over a period of time, are listed and abstracted in Appendix A and described in the text within appropriate chapters.

There are ten chapters in the report:

I. Overview: The National Longitudinal Study of the Class of 1972.
II. Sample Design and Survey Participation
III. Development of the First Follow-Up Questionnaires
IV. Maximizing Participation and Response
V. Preparation of the NLS Data File
VI. Weight Calculations
VII. Sampling Error Estimates
VIII. Composite Variables for Studying Student Participants
IX. Methodological Studies
X. Descriptive Analysis

Sponsor: NCES

Classification: Methodology (sample design, data collection, instrumentation, file preparation, weight calculation)

5002

Bailey, J. P., Jr. *National Longitudinal Study of the High School Class of 1972: Base-year, first, and second follow-up data file index: A KWIC-keyword in context index.* Research Triangle Park, North Carolina: Research Triangle Institute, Center for Educational Research and Evaluation, April 1976.

The purpose of this Keyword in Context (KWIC) Index is to list in a particularly useful form the 1,499 variables which appear in the public use file containing respondent information from the base-year, first, and second follow-up surveys in 1972, 1973, and 1974. This index is an integral section of the Data File Users Manual which supports the merged survey file; it is available separately not only as a handy guide to the areas covered by NLS, but also as a reference or source for researchers contemplating purchase of the complete file and its documentation.

Sponsor: NCES

Classification: Other (content index)

5003

Bailey, J. P., Jr. *National Longitudinal Study of the High School Class of 1972: Summary of proceedings of an AERA informal session, San Francisco, April 1976.*

Research Triangle Park, North Carolina: Research Triangle Institute, Center for Educational Research and Evaluation, April 1976.

In April 1976, an informal session among NLS users and planners was held at the annual AERA convention in San Francisco, California, to discuss problems and share experiences and plans. The anticipated output of this meeting was to be a set of comments, recommendations, and/or concerns which could be considered by both NCES and RTI to further project work. This paper summarizes those proceedings and provides a list of the participants.

Sponsor: NCES

Classification: Other (proceedings)

5004

Bailey, J. P., Jr. *National Longitudinal Study of the High School Class of 1972: Second*

Follow-up survey: Final methodological report. Research Triangle Park, North Carolina: Research Triangle Institute, Center for Educational Research and Evaluation, October 1976.

This document is the formal report of activities during the second follow-up survey. As with the prior first follow-up survey report, it is methodological, historical, and descriptive in nature, rather than analytical. The several reports of a more technical nature produced in conjunction with the survey, as well as major revisions of previous reports, are listed and abstracted in Appendix A.

The following chapters are included:

I. Overview: The National Longitudinal Study of the Class of 1972
II. Sample Design and Survey Participation
III. Development of the Second Follow-Up Questionnaire
IV. Maximizing Participation and Response
V. Preparation of the NLS Data File
VI. Weight Calculations
VII. Reliability of NLS Data
VIII. Preliminary Analyses and Results

There are five appendixes.

Sponsor: NCES

Classification: Methodology (sample design, instrumentation, data collection, file preparation, weight calculation)

5005

Bowers, W. J., Pierce, G. L., Blitch, C., & Carr, A. *Access to postsecondary education.* Boston, Massachusetts: Russel B. Stearns Center for Applied Social Research, Northeastern University, 1977.

The report is organized into six chapters and three appendixes. The appendixes contain a complete inventory of the variables used in the analysis and detailed tabulations of the estimated effects of social background and access variables which will be introduced and described at appropriate points in the text of the report.

Four chapters present the basic findings of the analysis. Chapter 2 provides (1) a comprehensive view of the relative effects of social background characteristics, access variables, and interest/influence variables on the twelve attendance patterns described above, and (2) a more detailed picture of the way in which access categories affect attendance through the various routes and at the several destinations.

Chapters 3 through 5 deal respectively and in more detail with immediate, delayed, and retained patterns of attendance. In particular, they examine the effects of specific variables within the various blocks that make the most substantial and significant contributions to the postsecondary educational attendance process.

Finally, in Chapter 6 the authors (1) review the findings with an eye toward their policy implications, (2) discuss limitations that must be considered in interpreting and evaluating results, and (3) present an agenda of further work needed.

Perhaps the most disturbing finding is that enrollment in noncollege preparatory curricula continues to have a negative effect on attendance. In particular, it is distressing to find that enrollment in a vocational curriculum has a negative total causal impact on vocational school attendance.

Access inequalities uncovered are (1) the academic preparation disadvantage of blacks, and (2) social influence disadvantage of females and youngsters with not-so-well-educated parents.

Sponsor: NCES

Classification: Postsecondary (access)

5006

Breglio, V. J., Stevers, M., & Tobias, J. *An assessment of school supervised work education programs, Part II: Urban cooperative work education programs and follow-up study, Volume 2: Work education program outcomes—a twenty-four month follow-up study* (OPBE Contract No. OEC-0-74-8718). San Francisco, California: Olympus Research Centers, March 1976.

This study assesses the effectiveness of school-supervised work education programs. The stated purposes of the study are (1) to

provide useful information on the relationships between the kinds of experiences students receive in various types of work education programs and their postprogram experiences; (2) to identify and analyze existing constraints or limitations in carrying out the various work education programs, including both "internal" and "external" constraints; and (3) to determine the feasibility of expanding cooperative work education programs. The specific purposes of Part II of the study were (1) to discover more about the operation of cooperative work education programs in large cities, and (2) to determine the postprogram experiences of both participants and nonparticipants interviewed in conjunction with Part I of the study. A portion of this research involves the comparison of vocational education students from the NLS with those students who were interviewed during the first part of the study. Analyses using NLS base-year and first follow-up data yielded results dealing with labor force status, current weekly earnings, 52-week employment stability, and current job satisfaction, similar to those results obtained from the comparison group.

Sponsor: OPBE

Classification: Labor force participation; vocational/technical education

5007

Breland, H. M., Stocking, M., Pinchak, B. M., & Abrams, N. *The crosscultural stability of mental test items: An investigation of response patterns for ten socio-cultural groups* (NIE Grant No. NE-6-00-3-0116). Princeton, New Jersey: Educational Testing Service, February 1974.

This study explores the complex problem of testing in a pluralistic society, suggesting a new way of thinking about test use and construction. The analysis was performed on data from over 14,000 high school seniors, members of the NLS sample, with respect to sociocultural differences in response to cognitive test items. Using a vector index of cross-cultural stability, items having notable patterns of instability were examined closely for factors which might explain such an outcome. The greatest instabilities were noted among the vocabulary items. Mathematical knowledge obtainable from everyday life situations, such as counting money, is less difficult for minority groups than very simple mathematical problems.

Sponsor: NIE

Classification: Methodology (measurement)

5008

Carroll, S. J., & Morrison, P. A. *National Longitudinal Study of high school seniors: An agenda for policy research* (R-1964-HEW). Santa Monica, California: Rand Corporation, June 1976.

The Office of the Assistant Secretary for Planning and Evaluation contracted with the Rand Corporation to develop a research agenda for the National Longitudinal Study. The agenda identifies a broad array of policy issues suitable for research with the NLS, singles out ten high-priority studies, and presents research possibilities for further follow-ups of the class of 1972.

The ten high-priority studies singled out are: (1) influence of the secondary school, (2) migration and job search, (3) attitudes and career success, (4) segmented labor markets, (5) evaluation of career objectives, (6) nontraditional attendance patterns in postsecondary education, (7) persistence and transition patterns of college parallel students in two-year colleges, (8) development of career aspirations and orientations among young women, (9) consequences of early parenthood, (10) near-term marital stability.

The research possibilities fall into four basic areas: (1) individuals' relationships with the labor market, (2) their long-term life outcomes, (3) the intergenerational transmission of effects, and (4) the NLS as a basic investment in the future.

Sponsor: ASPE

Classification: Other (analysis priority)

5009

Center for Educational Research and Evaluation. *Supporting statement for the first follow-up survey for the high school class of 1972.* Research Triangle Park, North Carolina: Research Triangle Institute, August 1973.

A supporting statement accompanied the First Follow-Up Questionnaire when it was

submitted for government clearance. The first part of the statement gives the background, uses, and justification of the survey; the largest part describes the plans for the first follow-up (survey procedures, reports and tabulations, schedule); the last part discusses consultations and meetings leading to the development of the First Follow-Up Questionnaire and concerns about respondent burden, sensitivity, and confidentiality. Attachment A contains the results of the Census Bureau pretest and copies of the instruments used. Attachment B is a copy of the newsletter sent to respondents prior to the first follow-up.

Sponsor: NCES

Classification: Methodology (instrumentation)

5010

Center for Educational Research and Evaluation. *Digest of proceedings of the first planning conference*. Planning conference for the National Longitudinal Study of the High School Class of 1972, Washington, D.C., November 4-6, 1973. Research Triangle Park, North Carolina: Research Triangle Institute, 1973.

The First Planning Conference for the National Longitudinal Study of the High School Class of 1972 was held at the Burlington Hotel in Washington, D.C., over the three-day period, 4-6 November 1973. The purposes were to discuss priorities, to advise about plans for the overall conduct of the study, and to discuss the research priorities and plans for a study of the class of 1977. This document describes the proceedings of the four sessions: Overview, Base-Year Study; Research Design for the First Follow-Up Analysis; Design of the Second Follow-Up; and Design of the 1977 Cohort Study.

Sponsor: NCES

Classification: Other (proceedings of planning conference)

5011

Center for Educational Research and Evaluation. *Conceptual model of the National Longitudinal Study*. Research Triangle Park, North Carolina: Research Triangle Institute, December 1973.

The Analytic Review Series which provided input to NLS included a General Educational Development Model developed by James Trent et al. (UCLA, 1972). The model was modified by RTI to fill the specific needs of NLS, and the relationship between the two models was presented in the conceptual model. The attachment indicates the variables from the base-year and first follow-up instruments used in the NLS conceptual model.

Sponsor: NCES

Classification: Other (conceptual model)

5012

Center for Educational Research and Evaluation. *NLS analysis working paper number one and addendum*. Research Triangle Park, North Carolina: Research Triangle Institute, January 1974.

The purpose of the NLS analysis working papers was to solicit reactions from planning conference participants and OE personnel on the data analysis plans. The first paper focuses on variable definitions to be used in both the descriptive and analytic studies and on basic descriptive analyses to be generated from the file of base-year and first follow-up data. Defined are the independent and subpopulation classification variables. Three preliminary analytical models that focused on policy issues as well as several topics related to variables construction and basic descriptive analyses are discussed.

Sponsor: NCES

Classification: Methodology (analysis strategy)

5013

Center for Educational Research and Evaluation. *Record of proceedings of the second planning conference*. Planning conference for the National Longitudinal Study of the High School Class of 1972, Washington, D.C., April 23-24, 1974. Research Triangle Park, North Carolina: Research Triangle Institute, 1973.

The Second Planning Conference for the National Longitudinal Study of the High School Class of 1972 was held at the Burlington Hotel in Washington, D.C., over the two-day period, 23-24 April 1974. Its purpose was

to discuss progress, priorities, and NLS goals as well as to advise about plans for the overall conduct of the study. The report, a transcription of a recording of the meetings, gives a detailed account of the four sessions: Review of Progress, Implications of NLS in Issues Facing the Public Schools and in Career Education Issues, Issues Facing Public Systems and Private Institutions of Higher Education, and Priorities for Data Analysis.

Sponsor: NCES

Classification: Other (proceedings of planning conference)

5014

Center for Educational Research and Evaluation. *NLS analysis working paper number two*. Research Triangle Park, North Carolina: Research Triangle Institute, June 1974.

In April of 1974, a two-day meeting was held at RTI to discuss NLS analysis plans. This paper summarizes the ideas discussed in that meeting. Emphasis was on specifying the descriptive analyses to be conducted later that year. Suggestions and plans presented in the paper cover the following topics: factor analysis of the base-year questionnaire, subpopulation classification factors, codebooks, descriptive tables, basic descriptive flow analysis, additional transition analyses, descriptive profiles of subgroups, predictive and causal analysis, and the critical data base. A summary of the base-year principal components and factor analysis is attached as Appendix A.

Sponsor: NCES

Classification: Methodology (analysis strategy)

5015

Center for Educational Research and Evaluation. *Supporting statement for the survey instrumentation of the second follow-up survey for the high school class of 1972*. Research Triangle Park, North Carolina: Research Triangle Institute, August 1974.

A supporting statement accompanied the Second Follow-Up Questionnaire when it was submitted for clearance. The first part of the statement gives the background, uses, and justification of the survey; the largest part describes the plans for the second follow-up (survey procedures, reports and publications, schedule); the last part discusses consultations and meetings leading to the development of the Second Follow-Up Questionnaire and concerns about respondent burden, sensitivity, and confidentiality. There are eight attachments to the statement:

A. National Longitudinal Study of the High School Class of 1972: Second Follow-Up Field Test.
B. Survey Instrumentation for the Field Test of the NLS: Second Follow-Up.
C. Survey Questionnaire for the Second Follow-up of the NLS of the High School Class of 1972.
D. OPERATION FOLLOW-UP Newsletter.
E. Parent and Sample Member Advisory Letters.
F. Text of Mailgram and Postcard Reminder.
G. Cover Letters for First and Second Questionnaire Mailouts.
H. Time Frame Chart.

Sponsor: NCES

Classification: Methodology (instrumentation)

5016

Center for Educational Research and Evaluation. *Imputation procedures for NLS data base*. Research Triangle Park, North Carolina: Research Triangle Institute, January 1975.

This paper documents the imputation procedures used for the first follow-up data. The procedures involved three phases: (1) direct logical inferences (e.g., type of school from its name and address); (2) indirect logical inferences (e.g., impute studying fulltime for those who are studying and not working); (3) statistical imputations (e.g., impute a value in accordance with the probability distribution of the values for given cells defined by the basic classification variables and relevant activity state information).

Sponsor: NCES

Classification: Methodology (imputation)

5017

Center for Educational Research and Evaluation. *National Longitudinal Study of the*

High School Class of 1972: A summary of the merged findings from analyses by RTI of the first follow-up and preceding data. Research Triangle Park, North Carolina: Research Triangle Institute, September 1975.

For those not familiar with NLS, the summary provides a useful overview. The first section describes the base-year survey and subsequent waves and the NLS goals and purposes. The second section summarizes findings from data analyses of the first follow-up and base year completed prior to September 1975.

Sponsor: NCES

Classification: General description (summary of survey data)

5018

Center for Educational Research and Evaluation. *Supporting statement for the survey instrumentation of the National Longitudinal Study: Third follow-up.* Research Triangle Park, North Carolina: Research Triangle Institute, July 1976.

This statement was provided in support of the third follow-up instrument of the National Longitudinal Study. Included in the document are a general overview including a historical review of the general objectives of the project, the circumstances prescribing the survey, the general uses of the survey data and discussion of the conceptual model, a detailed description of the survey plan, and special objectives and data analysis plans for the third follow-up. Information on time schedules, consultation outside the sponsoring agency, and information on respondent burden is also provided. The proposed questionnaire is presented as Attachment A.

Sponsor: NCES

Classification: Methodology (instrumentation)

5019

Conger, A. J., Conger, J. C., & Riccobono, J. A. *Reliability and validity of National Longitudinal Study measures: An empirical reliability analysis of selected data and review of the literature on the validity and reliability of survey research questions.* Research Triangle Park, North Carolina: Research Triangle Institute, July 1976.

This report is divided into four major sections. The first section briefly summarizes the purpose of NLS, the sample design, and characteristics of the questionnaires. The second major section provides a comprehensive review of validity and reliability for NLS-type questions and respondents. The third and major section presents a detailed study of the reliability of a sample of Second Follow-Up Questionnaire items on a sample of NLS respondents, including an evaluation of test-retest reliability as a function of data collection procedures (mail-in or personal interview), item characteristics (response format, item content, and item length), respondent characteristics (sex, ethnicity, SES, and ability), and the interaction of these diverse factors. The final section integrates the conclusions of the literature review and reliability study results and discusses the implications of these results for survey research.

Sponsor: NCES

Classification: Methodology (measurement property)

5020

Conger, A. J., Peng, S. S., & Dunteman, G. H. *National Longitudinal Study of the High School Class of 1972: Group profiles on self-esteem, locus of control, and life goals.* Research Triangle Park, North Carolina: Research Triangle Institute, January 1976.

The purpose of this report is to use Base-Year and First Follow-Up Questionnaire data on self-esteem, locus of control, and work-, community-, and family-related goal activities to generate profiles for describing subpopulations defined by career patterns and demographic and personal characteristics. The following questions are addressed: (1) What base-year differences exist among subgroups and how are they related to school experience, career plans, and subsequent activities? (2) What subgroup differences exist at the time of the first follow-up, particularly among groups differing in post-high-school activities and transition state sequences? (3) How are the base-year to first follow-up changes in self-esteem, locus of control, and goal orientations related to changes in activities, transition sequences, and background variables? The answers to the questions are used for hypothesizing possible causal roles of the

psychological attributes and for describing the psychological status differences related to background and demographic variables and to transition sequences and activities. There are four major sections in this report. The data collection section describes the sample, the survey instruments, the procedures, and the data processing. The measurement specifications section specifies the characteristics of the items and composite variables used as the psychological construct measures. Next, various group profiles are described and contrasted. Finally, there is a summary of the important findings and their implications. The appendixes contain means, standard deviations, subgroup sample sizes, and generalized standard errors.

Sponsor: NCES

Classification: Psychological development

5021

Crain, R. L. *The influence of high school racial composition on the college attendance and achievement test scores of black students.* Santa Monica, California: The Rand Corporation, in progress, 1977.

The primary purpose of this study is to investigate the college attendance and achievement test scores of black students who attend white-dominated high schools as compared with those of black students who attend black-dominated high schools. The study is based upon methodology involving cross-tabulation, correlation, and regression of variables taken from individual student data and data gathered or aggregated at the level of the school.

Sponsor: NCES

Classification: Secondary education (school effects)

5022

Creech, F. R. *A vocational re-evaluation of the base-year survey of the high school class of 1972, Part I: Selected characteristics of the class of 1972* (Contract No. OEC-0-73-6806). Princeton, New Jersey: Educational Testing Service, October 1974.

This report highlights the educational characteristics of students and selected univariate explorations. Results include:

(1) About half of the white students are enrolled in academic programs as compared to a quarter of the black students. About 44 percent of blacks as compared to 29 percent of whites are enrolled in general curriculum programs.

(2) The median class standing of females is substantially higher than that of males, and vocational/technical students are about 6 percent higher than general students in class standing.

(3) Students in federal programs have slightly higher academic ability scores than students in the same curriculum who do not participate in federal programs. Self-reported grades, however, do not reflect this advantage.

(4) About one-third of the population may be facing financial barriers to their continued education. Relatively large numbers of students are ignorant of many potential sources of financial aid. There is a relationship between the student's use of financial aid sources and the frequency with which counselors recommended such resources.

Sponsor: OPBE

Classification: Secondary education (student characteristics); vocational/technical education

5023

Creech, F. R., et al. *Comparative analysis of postsecondary occupational and educational outcomes for the class of 1972.* Princeton, New Jersey: Educational Testing Service, 1977.

This study examines the educational and occupational decisions made by vocational education students, during the period between the base-year and first-year follow-up data collections. The study examines career and employment patterns in the year immediately following the completion of their secondary education and the factors which affected the career patterns of these youth. Several analyses were performed to explain the causal relationship, if any, between their career decisions and hereditary and environmental variables (race, sex, school location, SES, etc.). These analyses were compared with data for both academic and general curriculum students to determine the differential

effects or impacts of the different educational experiences.

Sponsor: OPBE

Classification: Vocational/technical education

5024

Dresch, S. P. *Studies of the impact of student financial aid program, Study B: Impact of student aid and labor market conditions on access to postsecondary education.* New Haven, Connecticut: Institute for Demographic and Economic Studies, August 1975. (Abstract)

This substudy is part of a two and one-half year study, Impact of Student Aid and Labor Market Conditions on Access to Postsecondary Education, being conducted by the Higher Education Research Institute and supported by the Office of Planning, Budgeting, and Evaluation of the U.S. Office of Education (Contract Number 300-75-0382). NLS data will be used along with data from the ACT survey of 1972-73 high school juniors and the ETS Preliminary Scholastic Aptitude Test-National Merit Scholarship Qualifying Test (PSAT-NMSAT) norming sample of 1974-75 high school juniors to identify the consequences of changes in national and local labor market conditions, in financial aid availability, and in other aspects of policymakers to anticipate more accurately the consequences of alternative public policies under the changing economic conditions which will characterize the future.

Sponsor: OPBE

Classification: Postsecondary (access); financial aid

5025

Dunteman, G. H. & Peng, S. S. *National Longitudinal Study of the High School Class of 1972: Planning and activity states analysis.* Research Triangle Park, North Carolina: Research Triangle Institute, September 1975.

This report presents basic descriptive analyses of the planning and activity states of the NLS sample members. The central theme deals with the following questions: (1) What were the young people's plans shortly before graduation from high school? (2) What were they doing shortly after graduation? (3) How many of them fulfilled their plans? (4) What were they doing one and one-half years after graduation? (5) How many changed from one activity to another? Findings from several descriptive longitudinal and cross-sectional analyses of base-year and first follow-up data give insights into these questions. Three appendixes cover specification and use of planning and activity state variables, sampling variability, and plans and activities for respondents excluded from planning state analyses.

Sponsor: NCES

Classification: Postsecondary (access); labor-force participation

Note: A revised version of this report is published (see 4007).

5026

Dunteman, G. H., Peng, S. S., & Holt, M. M. *Composite score analysis: ability index, SES index, some psychological and educational construct scales.* Research Triangle Park, North Carolina: Research Triangle Institute, August 1975.

The first set of NLS data was analyzed to derive composite scores to be used in subsequent analyses. The composites include a general ability measure, a socioeconomic status (SES) index, and factor scores from factor analyses of sets of question items measuring goals, attitudes, and other psychological attributes. The derived composites can be used to help define subpopulations for descriptive statistics and as independent or control variables in some analytic studies. Procedures and results of the composite score analyses are presented in the three sections of the document. Four appendixes contain Duncan SEI scores for FFU Q.93, group means for substitution of missing data, principal components factor matrices, analysis means, and standard deviations used for standardization.

Sponsor: NCES

Classification: Methodology (variable construction)

5027

Echternacht, G. J. *Reliability and validity of questionnaire items—status, social-psychological, and educational plans and aspirations variables.* Princeton, New Jersey: Educational Testing Service, April 1974.

This article provides a rationale for conducting resurveys for the purpose of measuring reliability and validity, demonstrates procedures for conducting and analyzing resurveys, and provides a concrete example of one such resurvey effort, a reliability and validity study using two random samples drawn from the NLS.

It was concluded that resurveying subsamples of a survey provides valuable information for both the study and project staff, especially when the survey will be repeated or respondents will be followed up, including (1) estimates of bias which have implications for future questionnaire design, (2) estimates of reliability which aid in interpreting multivariate analyses of the data, and (3) a check on the thoroughness of the data collection system.

Sponsor: NCES

Classification: Methodology (measurement property)

5028

Echternacht, G. *A vocational re-evaluation of the base-year survey of the high school class of 1972, Part II: Characteristics distinguishing vocational students from general and academic students* (PR-75-3). Princeton, New Jersey: Educational Testing Service, February 1975.

This study identifies distinguishing characteristics of high school vocational students. Factor analysis and discriminant analysis techniques were employed. Results indicate that academic students have higher academic ability than general and vocational students; vocational students are less alienated from school and more work-oriented than general students; and proportionally more women and whites are enrolled in vocational programs than in general programs.

Sponsor: OPBE

Classification: Secondary education (student characteristics)

Note: This is published in *Multivariate Behavioral Research* (see 1002)

5029

Eckland, B. K., & Bailey, J. P., Jr. *National Longitudinal Study of the High School Class of 1972: A capsule description of the second follow-up survey data.* Research Triangle Park, North Carolina: Research Triangle Institute, July 1976.

This report is designed to present basic descriptive results of the NLS second follow-up data. The purpose is to give summative information about education, work, and family and community activities since leaving high school. There is a concentration on persistence in education and participation in jobs because, among the many other issues which could be addressed with the NLS data, these seem to have the most pervasive, important, and meaningful impact on the lives of young adults. The family and community life focus rounds out this descriptive summary of these young adults as they move into the American mainstream.

Sponsor: NCES

Classification: General description (summary of survey data)

Note: This report is published by NCES (see 4001)

5030

Eisenman, R. L., Eitelberg, M. J., Purcell, A. C., Richmond, B. M., Wagner, C. L., & Hunter, R. W. *Educational benefits analysis—An examination of the effects of G.I. Bill educational benefits on service accessions.* Alexandria, Virginia: Human Resources Research Organization, November 1975.

The principal objectives of this study were: (1) to examine the impact of terminating the G.I. Bill in respect to the number, quality, and representativeness of service accessions; and (2) to provide a means for measuring the relative costs and benefits of alternative educational programs which might be needed to sustain military strength in the event of G.I.

Bill termination. Quantitative data came primarily from the Census Bureau, the National Longitudinal Study, Gilbert Youth Surveys, and Department of Defense Surveys.

Sponsor: Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs

Classification: Military Service

5031

Eitelberg, M. J. *Evaluation of Army Representation*. Alexandria, Virginia. Human Resources Research Organization, November 1976.

The National Longitudinal Study data were applied to a convergence/divergence model based on a review of the relevant literature. Standard statistical techniques were employed to examine the demographic, socioeconomic, and attitudinal measures of Army representation. Generally, the results of this evaluation show that Army entrants are not exceptionally divergent from their civilian counterparts.

Sponsor: U.S. Army Research Institute for the Behavioral and Social Sciences

Classification: Military Service

5032

Folsom, R. E., Jr. *Variance components for NLS: Partitioning the design effect*. Research Triangle Park, North Carolina: Research Triangle Institute, January 1975.

When the precision of sample statistics from a complex survey design like that of NLS is examined, it is useful to establish a set of standards. One such standard is the precision that would have been attained had an equal-sized simple random sample of respondents been selected. Leslie Kish introduced Design Effect (DEFF)—the actual variance of a sample statistic divided by the variance appropriate for an equal-sized simple random sample. The DEFF measures the combined effects of all the selection and estimation procedures on the precision of sample statistics. The purpose of this report is to demonstrate a variance components methodology for partitioning the overall design effect (D) for a ratio mean into stratification (S), unequal weighting (W), and clustering (C) effects, so that D = WSC.

Sponsor: NCES

Classification: Methodology (sample design)

5033

Folsom, R. E., & Weber, J. H. *Limited investigation of the effects of stratification, clustering, respondent mobility, and overlapping schools with the 1972 sample*. Research Triangle Park, North Carolina: Research Triangle Institute, April 1976.

Longitudinal measures of change are the most important kinds of estimates being produced from the NLS survey. Several topics are presented in this report, most of which build on previous variance components analyses. The major areas covered are effects of stratification and clustering, correlations from overlapping schools in the two NLS surveys, and mobility of the NLS 1972 cohort.

Sponsor: NCES

Classification: Methodology (sample design)

5034

Freeberg, N. E., & Rock, D. A. *A vocational re-evaluation of the base year survey of the high school class of 1972, Part III: Aspirations and plans of high school students: The role of academic, social, and personal characteristics* (PR-75-5). Princeton, New Jersey: Educational Testing Service, February 1975.

This study examines the plans and aspirations of high school students for their educational and vocational future and the influences that may have had a role in shaping those decisions. In an attempt to explain the complex role of a variety of family, personal, peer, and school characteristics, different analytical approaches were found to be applicable as a function of the particular questions being posed and the nature of the available information. Thus, it was important, initially, to define specific educational and vocational objectives perceived by the student, the relative value or priority that he assigns to each, how he claims to arrive at those decisions, and how he is likely to apply them in shaping his post-high-school strivings. Prior evidence of the importance of sex differences in this regard and a serious research gap in knowledge of the extent to which curriculum group membership is reflected in the formulation of

plans and aspirations define the focus of the report.

Sponsor: OPBE

Classification: Secondary education (student characteristics); vocational/ technical education

5035

Hilton, T. L., & Rhett, H. *The base-year survey of the National Longitudinal Study of the High School Class of 1972*. Princeton, New Jersey: Educational Testing Service, 1973.

This report describes the operations and summarizes the results of the base-year survey of the National Longitudinal Study conducted by the Educational Testing Service for the National Center for Education Statistics in the spring of 1972. Seven appendixes, bound in separate volumes, include copies of all data collection instruments and documents created for the base-year survey, descriptive summaries of all questionnaire responses and test scores, and the full text of a manual written for future data file users.

Sponsor: NCES

Classification: Methodology (sample design, instrumentation, data collection); general description (summary of survey data)

5036

Howard, W. R. *National Longitudinal Study planning conference*. Chapel Hill, North Carolina: October 1-3, 1975 (Final paper from the panel).

This report summarizes suggestions from the panel members for analysis plans for the second and third follow-ups. There are three appendixes included.

Sponsor: NCES

Classification: Methodology (analysis strategies)

5037

King, D. A., Weeks, M. F., Thorne, N. R., & Myers, C. S. *Data collection activities for the second follow-up (August 1975 - June 1975): Final report*. Research Triangle Park, North Carolina: Research Triangle Institute, July 1975.

The NLS second follow-up data collection activities involved the mailout of a newsletter to all members of the sample, advisory letters to parents and lead letters to participants, tracing activities for each individual whose newsletter was returned by the post office as undeliverable, questionnaire mailouts, mailout of reminder/thank-you postcards, and mailgram and telephone follow-up contacts with nonrespondents. In addition, a special investigation was conducted to measure the relative impact of mailgrams versus postcards in terms of increasing response. Another special study involved telephone interviews with a subset of the sample members to determine the impact and effectiveness of the newsletter and possible ways of improving it. The final steps in data collection were the editing and coding of all returned questionnaires. This report contains descriptions and tabular summaries of these varied activities. The two attachments are copies of the mailout items and the report on the telephone survey of newsletter recipients.

Sponsor: NCES

Classification: Methodology (data collection procedures)

5038

Levinsohn, J. R. *National Longitudinal Study of the High School Class of 1972: Special activity state survey and second level of edit activities*. Research Triangle Park, North Carolina: Research Triangle Institute, March 1976.

The special activity state survey described in this paper was designed to collect additional data from NLS sample members in an effort to obtain complete classifications for the 1972 and 1973 activity states and to obtain complete information on certain basic classifier variables. The second level of edit activities described in this paper were specific file editing tasks related to reformatting, recoding, or adding to certain sections of the 1975 NLS data base. The new data came from data collection and data processing activities that continued beyond the first follow-up cutoff dates. This consisted of the Special Activity State Questionnaire (ASQ) survey, processing additional School Record Information Forms (SRIF) and additional School Questionnaires (SQ), and creating new composite variables.

Sponsor: NCES

Classification: Methodology (data collection procedures)

5039

Levinsohn, J. R., & Lewis, L. H. *Base-year, first, and second follow-up master file documentation*. Research Triangle Park, North Carolina: Research Triangle Institute, August 1976.

This paper documents the contents of the 1976 NLS Master File. This file is similar in structure and content to the 1976 NLS Public Release File, differing only in the number of variables in the file. The Master File contains 1,669 variables while the Release File contains only 1,495 variables; the Release File is a subset of these 1,669 variables. The additional variables that make up the Master File are primarily drawn from the Student School Record Information Form (SRIF) and items that were withheld from the Public Release File for confidentiality reasons. The report is divided into two sections. Section 1 contains a summary listing of each variable contained in the file. This listing provides, for each variable, the variable number, a short label, the location of the implied decimal point (if blank, the variable is a whole number), the tape position, and a long label. This section should serve as a quick guide to the contents of the file. Section 2 presents a complete and detailed listing of the variables and variable frequency distributions in the data file.

Sponsor: NCES

Classification: Methodology (file construction)

5040

Levinsohn, J. R., Riccobono, J. A., & Moore, R. P. *Base-year and first follow-up data file users manual* (preliminary). Research Triangle Park, North Carolina: Research Triangle Institute, April 1975.

The *Users Manual* is a detailed description of the merged base-year/first follow-up NLS data file. The purpose of the manual is to document the contents of the available release tapes so that interested investigators in the general research community can exploit the data effectively. The manual has five parts: Introduction, Methodology, File Preparation, Contents and Organization of the Data File, and Technical Specifications. In Part 2, Methodology, the sample design, instruments, and data collection procedures are discussed. Part 3 describes first follow-up data preparation and entry, error and missing data codes, machine editing procedures, and quality and analytic indices. The 12 appendixes are:

A. Student's School Report Information Form, Base-Year Student Questionnaire and First Follow-Up Questionnaire (Form B)
B. Critical Items in the First Follow-Up Questionnaire
C. List of Occupational Codes
D.1 List of Field of Study Codes
D.2 List of License, Certificate, or Diploma Codes for First Follow-Up Question 43B
E. Routing Codes and Routing Patterns
F. NLS Release Tape Variable and Response Lists
G. List of Items Deleted from the SRIF, Base-Year, and First Follow-Up Instruments
H. Imputation of Grade Point Averages and Conversion of Grading System
I. List of Region Codes and States within Regions
J. Frequency Distributions for Base-Year and First Follow-Up Questionnaire Items

Sponsor: NCES

Classification: Methodology (file construction)

5041

Levinsohn, J. R., Lewis, L. H., Riccobono, J. A., & Moore, R. P. *Base-year, first, and second follow-up data file users manual* (preliminary). Research Triangle Park, North Carolina: Research Triangle Institute, July 1976.

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Sponsor: NCES

Classification: Methodology (file construction)

5042

Lewis, L. H., & Levinsohn, J. R. *School file documentation.* Research Triangle Park, North Carolina: Research Triangle Institute, August 1976.

This report describes the contents of the 1976 NLS school data file. The school file is a companion file to the student-based 1976 NLS Master File; it is composed of 1,318 school records, one record for each high school from which NLS students were sampled. The file contains information about the environment, staff, procedures, facilities, and curricula of the NLS sample high schools. The 500 variables that make up the file are primarily from the School Questionnaire and/or one or two Counselor Questionnaires for each of the 1,318 participating schools.

Sponsor: NCES

Classification: Methodology (file construction)

5043

Lyons, N. I., & Moore, R. P. *Reliability of retrospective data.* Research Triangle Park, North Carolina: Research Triangle Institute, September 1976.

Of the 1,200 primary sample schools in the original NLS sample design, 231 did not participate in the base-year survey. The purpose of this study was to assess the reliability of base-year data obtained retrospectively during the first follow-up of students from nonparticipating schools. Limited base-year Student Questionnaire data were obtained during the first follow-up from a sample of the 1972 senior students from the participating schools. The study documented in this report is a question-by-question assessment of the reliability of the data obtained from these students. The resurvey procedure involved requesting information (i.e., 15 additional items in the First Follow-Up Questionnaire, Form B) from 500 base-year respondents and comparing the responses to the corresponding base-year items. The results and procedures are discussed.

Sponsor: NCES

Classification: Methodology (measurement property)

5044

McDill, E. L., & Alexander, K. *School process and career development studies.* Baltimore, Maryland: Johns Hopkins University, in progress, 1977.

The general purpose is to understand a variety of educationally important student outcomes, with particular emphasis on their responsiveness to properties of high school organization and to interpersonal processes within high school settings. The proposed studies will explore the more enduring consequences of such organizational and interpersonal effects, as well as "short-term" educational outcomes, for a wide range of post-high-school adult attainments. More specifically, during 1975-76 the authors proposed to conduct intensive studies of the transitions from high school to postsecondary institutions and of the role of schooling in the development of career plans and the actualization of labor market outcomes. Special attention will be devoted to the separate and combined consequences of race, sex, and socioeconomic background for access to and achievement in postsecondary schools and occupational attainment.

In the process of exploring such "tangible" educational outcomes as retention through high school graduation, influences in the high school-college transition, college retention, occupational attainment, and earnings, the authors hoped to acquire a better understanding of the development of students as they are processed through the educational system and of the factors which determine educational and career attainments.

In pursuit of the above objectives, three basic data sets will be employed: (1) Twenty-School Survey (TSS), (2) Explorations in the Equality of Educational Opportunity Survey (EEO), and (3) the National Longitudinal Study (NLS).

Sponsor: NIE

Classification: Postsecondary (access); secon- education (school effect)

5045

Moore, R. P. *Calculation of nonresponse-adjusted student weights for respondents to the NLS base-year and first follow-up surveys.* Research Triangle Park, North Carolina: Research Triangle Institute, October 1975.

The report traces the activities which led to the development of the adjusted weights—beginning with the basic NLS design, the base-year weight calculations, and the resurvey procedures. Next, the report describes the first follow-up weight calculations (including unadjusted student weights), nonresponse adjustment methodology, classifier variables, weighting classes, and the adjusted weights calculations. The last pages contain tables showing the nonresponse adjustment factors for each weighting class as well as the total number of students, total number of responding students, sum of all unadjusted weights, and the sum of the respondent unadjusted weights for each weighting class.

Sponsor: NCES

Classification: Methodology (weight calculation)

5046

Moore, R. P., & Shah, B. V. *Effects of stratification, clustering, and unequal weighting on the variances of NLS statistics.* Research Triangle Park, North Carolina: Research Triangle Institute, February 1975.

In this report, average design effects for statistics estimated from the base-year data are presented. Attempts to partition the effects into those due to stratification, clustering, and unequal weighting are discussed. The expected increases in subpopulation sample sizes due to oversampling are calculated and compared with the actual increases observed in the base-year survey. The effects on variances of oversampling and other factors which lead to unequal weighting are approximated and the optimum oversampling rates for several subpopulations are estimated. Several stratification variables are ranked from most to least effective in reducing the variances of survey estimates.

Sponsor: NCES

Classification: Methodology (sample design)

5047

Moore, R. P., & Shah, B. V. *Efficiency study of the NLS sample design.* Research Triangle Park, North Carolina: Research Triangle Institute, October 1975.

This paper describes steps in conducting the efficiency study, and presents the following major findings:

(1) The "optimal" design for national statistics involves 12 sample students per school.

(2) The "optimal" designs for domain statistics involve 15 students per school for white students; 18 per school for blacks, other races, males, and females; and from 21 to 27 per school for the domains defined by levels of father's education.

(3) The current NLS design with 18 students per school is perhaps the "optimal" overall design for all statistics.

(4) Designs with from 9 to 27 sample students per school all have high average efficiencies for both national and domain statistics.

(5) The criteria of maximum mean efficiency and minimum standard deviation of efficiencies appear to lead to the same "optimum" design choice.

(6) The ratios of the student component estimate to the sum of the school and student component estimates averaged approximately 98 percent for national statistics and 99 percent for domain statistics.

Sponsor: NCES

Classification: Methodology (sample design)

5048

Moore, R. P., & Shah, B. V. *Choosing the "optimum" design for an NLS cohort.*

Research Triangle Park, North Carolina: Research Triangle Institute, 1975.

This is another version of the paper on "Efficiency Study of the NLS Sample Design."

Sponsor: NCES

Classification: Methodology (sample design)

5049

Moore, R. P., & Shah, B. V. *Efficiency study of the change variables from the first follow-up of the NLS sample designs.* Research Triangle Park, North Carolina: Research Triangle Institute, February 1976.

This design efficiency study seeks to determine the "optimum" number of schools and seniors per school to select in a two-stage design, so as to minimize the variance of new cohort statistics subject to likely budget constraints. The variables used in this analysis were defined as changes (or lack of changes) in the individuals' responses from the base-year survey to the first follow-up survey. Variance components were estimated for each of 14 change variables, and the efficiency of each of nine equal-cost sample designs was estimated for each of 238 statistics. The "optimum" design for each type of statistic was then chosen as the design with the highest average efficiency. This report documents the methods as well as the results of this efficiency study.

Sponsor: NCES

Classification: Methodology (sample design)

5050

Moore, R. P., Shah, B. V., & Folsom, R. E. *Efficiency study of NLS base-year design.* Research Triangle Park, North Carolina: Research Triangle Institute, November 1974.

Finding the optimal design involved a search for the numbers of sample schools and students that would maximize the variance at a given cost. The efficiency study of the NLS base-year design resulted in the selection of 21 variables, the estimation of 17 sets of variance components for each variable, and computation of the efficiency of these 357 statistics for each of nine designs of approximately equal cost to yield an optimal design for all statistics. The report of this study gives a detailed account of these activities and their results.

Sponsor: NCES

Classification: Methodology (sample design)

5051

Noell, J. *Students' attitudes toward their high school education.* Washington, D.C.: National Center for Education Statistics, in progress, 1977.

The basic purpose of this proposed study is to discover and analyze the factors that affect students' attitudes toward their high school education. The hypothesis to be tested deals with characteristics of the school as they contribute to students' attitudes. A regression analysis will be used to assess the absolute and relative significance of personal and school factors in determining students' attitudes toward their education.

If student attitudes can be shown to be largely a function of school variables—such as curriculum or facilities or teacher characteristics (as opposed to cognitive skills which are apparently largely determined by a student's socioeconomic class)—a foundation for improved education policies will have been established.

Sponsor: NCES

Classification: Secondary education (school effects)

5052

Nolfi, G. J. *Demand for postsecondary education and transition from high school to work.* Cambridge, Massachusetts: University Consultants, Inc., in progress, 1977.

This study is divided into five main tasks: (1) an analysis of work experiences and use of labor market intermediaries by those high school graduates who directly enter the labor market, (2) an analysis of the expectations students have for future work and the effect of these on current school or work choices, (3) examination of the intervening hypothesis, (4) the effect of job expectations on the particular choice of type of schooling by institution and subject field, and (5) discussion of policy priorities and predictive policy analysis using derived models.

Thus, the process of job search and transition from school to work will be documented and analyzed.

Labor market status and participation and the determinants of labor market success will be analyzed. Factors affecting the choice of occupation and choice among job alternatives faced by high school graduates will be analyzed (using a conditional logit approach) as well as how expectations determine his/her decisions about further education/training or work.

Specifically, analysis will explore the application decisions of the individuals, the admissions decisions, the financial aid decisions of the institutions; the individual's decision to attend a particular institution which involves the probability of choice among institutions; and the decision to drop out or continue after a period of time.

In the Demand Study, training options in the world of work are being treated in a significant broadening of the traditional view of analysis of *demand* for *college* education. In the Work Study, aspects of choice among training options for those students who proceed to training rather than immediately going into the labor force will be examined.

Completion of the Demand Study will yield basic analysis of what choices the high school class of 1972 made and an understanding of the personal and background characteristics which are correlates of those choices. The results of the transition study will be a series of tables and equations highlighting the determinants and levels of earnings and other dimensions associated with choices made in the transition from school to work.

Sponsor: NCES

Classification: Postsecondary (access), labor-force participation

5053

Olson, L. S. *An empirical study of decisions involving postsecondary vocational school training.* Rochester, New York: University of Rochester, in progress, 1977.

The purpose of this study is to use available data to make inferences about how and why people choose vocational school training and about the short- and long-term effects of this training. The specific priority areas are: (1) examination of the vocational training decisions of inner city and rural students and possible means of affecting these decisions; (2) estimation of the dropout rate from vocational education programs, of the effect of dropping out on trainees, and of the effect policies can have on this rate; and (3) development of a more accurate estimation of the measures of the impact of postsecondary vocational education on earnings, of how discounted (to a particular year) benefits of this training compare with its costs, and of how the productivities of vocational school training and college attendance compare.

Sponsor: OE

Classification: Postsecondary (access); vocational/technical education

5054

Peng, S. S. *Transfer students among institutions of higher education.* Research Triangle Park, North Carolina: Research Triangle Institute, July 1976.

This study was designed to achieve the following objectives:

(1) To describe the extent of transfers in institutions of higher education, and to reveal differences in transfer rates among various types of institutions, and biosocial groups;

(2) To examine differences between transfers and non-transfers in four-year and two-year institutions, and differences between 2→4 transfers and four-year college non-transfers in background variables, financial aid status, satisfaction with college education, and academic performance;

(3) To describe students' self-reported reasons for changing schools; and

(4) To test the incongruency hypothesis between the student and the institution as reasons for transferring.

It was found that the 2→4 transfers constitute the largest group, and that two-year colleges may serve as a warm-up place for many students to obtain a college education.

Sponsor: NCES

Classification: Postsecondary (performance); financial aid

Note: This report is to be published by NCES (see 4021).

5055

Peng, S. S., Ashburn, E. A., & Dunteman, G. H. *Withdrawal from institutions of higher education: An appraisal with longitudinal data involving diverse institutions.* Research Triangle Park, North Carolina: Research Triangle Institute, September 1976.

The primary purpose of this study is to estimate withdrawal rates, to examine the withdrawal process, and to describe what happens to those students after leaving college. Withdrawals are classified into academic and non-academic categories, with the former being those withdrawals who reported some academic problem or a below C grade point average. Major findings include: (1) two-year colleges have higher withdrawal rates than four-year colleges; (2) SES, high school program, high school grades, and educational aspirations are important factors of college withdrawal; (3) whites have a higher withdrawal rate than blacks when other variables are controlled; (4) sex differences in college withdrawals are negligible; (5) financial aid seems to have significant impact on college persistence only among four-year college students who have low SES and high aspirations; and (6) withdrawal does not have negative effects on psychological development. It is concluded that college withdrawal is not necessarily bad for some students, and that more effective counseling services in high school and college are needed.

Sponsor: NCES

Classification: Postsecondary (performance); financial aid

Note: This report is to be published by NCES (see 4020).

5056

Peng, S. S., Baily, J. P., Jr., & Dunteman, G. H. *Differences between high school graduates and dropouts in participation patterns and response quality in survey studies.* Research Triangle Park, North Carolina: Research Triangle Institute, February 1977.

A group of high school self-reported dropouts and a group of simulated high school dropouts were compared with graduates in their participation rates, efforts required for data collection, and the overall quality of their responses in a longitudinal survey. Results indicate that dropouts are less likely to return mail questionnaires; have lower retention rates in a longitudinal study; need more effort to trace their residence and to complete editing checks; and generally provide data of lower quality. Results also indicate that no substantial differences in data quality exist between those dropouts and graduates who were interviewed. It is thus suggested that the interview approach is preferable as far as data quality is concerned. A combination of mail survey, extensive editing phone calls, and interviews would also be advisable. In either case, questionnaires should be simple and straightforward. A complicated and lengthy questionnaire would probably discourage dropouts from completing the questionnaire.

Sponsor: NCES

Classification: Methodology (nonresponse bias)

5057

Peng, S. S., & Dunteman, G. H. *A capsule description of the high school class of 1972: The first follow-up survey data.* Research Triangle Park, North Carolina: Research Triangle Institute, May 1975, August 1975.

This report summarizes descriptive information obtained from the first follow-up questionnaire data, with emphasis on postsecondary education and labor-force participation.

Sponsor: NCES

Classification: General description (summary of survey data)

5058

Peng, S. S., & Holt, M. M. *Tabular results of the Second Follow-Up Questionnaire.* Research Triangle Park, North Carolina: Research Triangle Institute, July 1975.

The tabular results are presented for each item in the questionnaire. Results are given for the total sample as well as for subpopulations defined by sex, race, ability, SES, high

school program, region, sex by race, sex by ability, sex by SES, sex by high school program, sex by region, race by ability, race by SES, race by high school program, and race by region. Actual and weighted subpopulation sizes are presented along with the percent distributions of responses for each item for these groups.

Sponsor: NCES

Classification: General description (summary of survey data)

Note: This report is to be published by NCES (see 4019).

5059

Pepin, A., & Korb, R. *Role of maturation and experiences in changing attitudes.* National Center for Education Statistics, in progress (expected in May 1977).

This study has two objectives. The first is to determine the extent and direction of attitude change of NLS respondents from the base year of the survey through the second follow-up. The second objective is to examine the pattern of attitude change in terms of two theories of attitude development: a theory of psycho-social development (Erikson, 1950) and a theory of dissonance (Festinger, 1962).

If there are factors other than maturation that affect attitude change, then this study will address the issue of the noncognitive effects of participation versus nonparticipation. If attitudes are developmentally determined, then the role of education in changing attitudes is that of a facilitator. In that case, since attitudes are a predisposition to behave positively or negatively toward the referent of the attitude, predictions of behavior at various levels of development could be validly made. If, on the other hand, the analysis should support the experiential theory of attitude development, then the role of education would be that of an initiator of attitude change. It would then be appropriate to try to identify those experiences which lead to attitude change in socially positive directions and to offer guidance to the educational system. Thus, this study, whatever the findings, will provide valuable insights into attitude changes.

The extent and direction of attitude change will be determined using a multivariate analysis of multiple repeated measurement variables. Determination of the relative merit of each theory as an explanation of attitude change will be determined by recursive path analysis.

Sponsor: NCES

Classification: Psychological development

5060

Purcell, A., Eisenman, R. L., Eitelberg, M. J., & Hicks, J. M. *Army representativeness: The National Longitudinal Study* (SR-ED75-25). Alexandria, Virginia: Human Resources Research Organization, January 1976.

This report provides graphical comparisons among four Army-relevant groups as to 13 indices of representativeness. The four groups break the 1972 high school seniors down according to whether or not they planned to enter the Army and again according to whether or not they had done so within 18 months. The 13 indices extend beyond such customary representation measures as race and sex to include family background, aspirations, interests, attitudes, and attitude changes.

The quantitative displays are assessed in relation to three categories of issues about representation—political legitimacy, social equity, and military effectiveness. This assessment is the first part of a systematic analysis leading to a plan for defining and achieving representation in the Army.

Sponsor: U.S. Army Research Institute for the Behavioral and Social Sciences

Classification: Military service

5061

Riccobono, J. A., & Dunteman, G. H. *National Longitudinal Study of the High School Class of 1972: Preliminary analysis of student financial aid.* Research Triangle Park, North Carolina: Research Triangle Institute, September 1975.

The purpose of this report is to provide descriptive statistics of the current patterns of student financial support for postsecondary attainment and to examine the impact of student participation in federal and nonfederal financial aid programs on educational persistence. Regarding the former, results include

the percentages (national estimates) of students and student subgroups who (1) planned for various kinds of financial aid as high school seniors, (2) received aid from various sources in their first postsecondary year, and (3) fulfilled their specific financial aid plans. The three appendixes contain supplementary tables which cross-tabulate aid by family income, reliability of the estimates, and matrices of student financial aid plan fulfillment.

Sponsor: NCES

Classification: Postsecondary (access); financial aid

5062

Sampling Research and Design Center. *Relative efficiencies of a three-stage versus a two-stage sample design for a new NLS cohort study*. Research Triangle Park, North Carolina: Research Triangle Institute, March 1976.

In a previous National Longitudinal Study sample design efficiency report, optimum numbers of schools and seniors per school for a new cohort sample were estimated. Because of interviewer travel costs associated with multiple follow-up surveys, a three-stage design clustering schools in primary sampling units (PSUs) of one or more counties might in the long run be a cost-effective alternative. This report compares the efficiency of a deeply stratified three-stage design patterned after RTI's National Assessment of Educational Progress (NAEP) sample to an optimized version of the 1972 two-stage design.

Sponsor: NCES

Classification: Methodology (sample design)

5063

Sampling Research and Design Center. *A survey measurement error model for repeated binary responses*. Research Triangle Park, North Carolina: Research Triangle Institute, September 1976.

This working paper focuses on the analysis of repeated survey measurements with emphasis on the misclassification error aspects of the Census Bureau model for binary (0-1) variables. Separate sections of this paper present a specification of the Census Bureau model for 0-1 variables which postulate a "true value" for each potential respondent and emphasize the misclassification aspects of the error distribution, explore bias and variance implications of the measurement error model for sample proportions, present the expectations of several measures of inconsistency for repeated measurement surveys, and summarize the results, concentrating on practical implications regarding the analysis of repeated survey measurements such as those of the NLS.

Sponsor: NCES

Classification: Methodology (measurement property)

5064

Sampling Research and Design Center. *Bias resulting from school nonresponse: Methodolody and findings (revised)*. Research Triangle Park, North Carolina: Research Triangle Institute, September 1976.

Approximately 20 percent of the initial sample schools did not participate in the NLS base-year survey. This school nonresponse rate was twice the student nonresponse rate in the participating schools. This paper presents methodology and detailed results of an investigation of the possible bias of school nonresponse in base-year estimates. Two methodologies developed expressly for this analysis and the basic statistics resulting from the method implemented are presented.

Sponsor: NCES

Classification: Methodology (nonresponse bias)

5065

Schrader, W. B., & Hilton, T. L. *Educational attainment of American high school seniors in 1960, 1965, and 1972: Feasibility study* (NIE Project No. NIE-6-74-0050). Princeton, New Jersey: Educational Testing Service, April 1975.

Project TALENT, the Equality of Educational Opportunity Survey, and the base-year survey of the National Longitudinal Study tested national porbability samples of American high school seniors in 1960, 1965, and 1972, respectively. This study is concerned with the feasibility of using these data for studying trends in educational attainment.

A detailed review of sample selection, weighting, and school participation showed

that the data would provide a sound basis for comparing performance, and identified certain implications of the existing data for making and interpreting comparisons. Comparisons made of students' high school experiences, their educational and occupational aspirations and plans, and their parents' education and occupation indicated that comparisons of test performances of the groups would be warranted. Finally, a detailed design was prepared for studying the equivalence of selected tests used in the three surveys and for equating test scores on pairs of equivalent tests.

Sponsor: NIE

Classification: Secondary education (student characteristics, school effect); methodology (measurement property)

5066

Selby, D. *Item-nonresponse in the first follow-up survey of the National Longitudinal Survey of the High School Class of 1972* (EPRC for Higher Education and Society Contract No. 300760026). Washington, D.C.: Joseph Froomkin, Inc., May 1976.

This paper describes a variety of analytical difficulties facing prospective users of the first follow-up of the NCES NLS survey and suggests some possible approaches to coping with these.

The primary focus of this paper is on the causes and consequences of selective item nonresponse in the first follow-up survey. Coding schemes used to flag this nonresponse and alternative approaches to estimating values for missing data are discussed.

An examination of special codes used for routing-pattern errors and missing data leads the author to propose preparation of an analysis-oriented data file to parallel, but not replace, the existing documentary file. Certain coding modifications which might be implemented for such a file are mentioned.

An examination of patterns of item nonresponse leads to the conclusion that the questionnaire's content and format, especially requests for detailed and/or private information, complex routing patterns, and a layout better suited to personal interviews than to mail-out collection, are probably responsible for some item nonresponse. Possible modifications that might reduce item nonresponse in future follow-up surveys are suggested.

Review of several approaches to adjustment for missing data leads to the recommendation of a specific imputation procedure for data already collected. Some possible methodological studies aimed at testing the effects of data assignments upon characteristics of the present NLS data base are also described.

Sponsor: EPRC for Higher Education and Society

Classification: Methodology (file construction)

5067

Shah, B. V., & Marnell, D. K. *Calculation of nonresponse-adjusted student weights for respondents to the NLS second follow-up survey*. Research Triangle Park, North Carolina: Research Triangle Institute, Statistical Science Group, January 1976.

The Sampling Department of the Statistics Research Division of RTI issued this technical report dealing with weighting adjustments for student nonresponse. The report describes the second follow-up weight calculations, nonresponse adjustment methodology, classifier variable data, procedure for forming weighting classes, and the adjusted student weight calculations. The last pages contain tables showing the nonresponse adjustment factors for each weighting class as well as the total number of students, total number of responding students, the sum of all unadjusted weights, and the sum of the respondent unadjusted weights for each weighting class.

Sponsor: NCES

Classification: Methodology (weight calculation)

5068

Survey Operations Center. *Report on the data collection activities of the first follow-up.* Research Triangle Park, North Carolina: Research Triangle Institute, February 1974.

The NLS first follow-up data collection activities involved the mailout of a newsletter

to all members of the sample, tracing activities for each individual whose newsletter was returned by the post office as undeliverable, questionnaire mailouts, mailout of reminder/thank-you postcards, and mailgram and telephone follow-up contacts with nonrespondents. In addition, a special study was conducted with a subset of the sample members to compare the effects of airmail and certified mail questionnaires, postcards, mailgrams, and telephone calls on the response rate. The final steps in data collection were the editing and coding of all returned questionnaires. This report contains descriptions and tabular summaries of these varied activities. The four attachments are copies of the mailout items, the telephone tracing manual and related materials, an alternative plan for follow-up procedures, and a report on a special telephone survey of nonrespondents.

Sponsor: NCES

Classification: Methodology (data collection procedure)

5069

Talbert, R. J. *National Longitudinal Study of the High School Class of 1972: Critical Data Base*. Research Triangle Park, North Carolina: Research Triangle Institute, Center for Educational Research and Evaluation, May 1976.

The purpose of this paper is to identify a set of items which are considered indispensable or critical to the needs of most current and potential users of the NLS data base. The major section of this paper describes the composition of the proposed critical data base and the procedures and criteria involved in its creation. The critical data base is defined in terms of the Base-Year, First, and Second Follow-Up Questionnaire items; the relationship of the planned third follow-up survey to these items is also discussed.

Sponsor: NCES

Classification: Methodology (variable construction)

5070

Waldenberg, A. L. *Life after high school: Education and migration decisions* (OE-300-75-0382). New Haven, Connecticut: Institute for Demographic and Economic Studies, Inc., 1976.

Using the NLS Class of 1972 sample, 1970 Census data, and information on postsecondary institutions from several sources, this analysis focuses on the impact of labor market conditions on work and schooling choices, as well as migration. The basic labor market descriptors include unemployment rates for 18-year-olds and for adults, and earnings profiles. These data are SMSA and county group specific, and they are disaggregated by race, sex, and educational attainment. It is assumed that these data are the basis on which young people formulate their expectations about the pecuniary costs and benefits of investing in education and migration activities.

The analysis thus far has focused on white males, but it will be extended to other races and to females. In the case of females, the analysis will incorporate marital and fertility choices which are expected to interact with postsecondary investment choices. This research will also be extended to the IDES-ACT sample of young people, where actual survey data is available on individual perceptions and expectations of labor markets.

Sponsor: Office of Education

Classification: Postsecondary education (access, performance); labor-force participation

5071

Walther, R. H. *Analysis and synthesis of DOL experiences in youth transition to work programs*. (Prepared under Grant No. 21-1-76-16). Washington, D.C.: George Washington University, December 1976.

This report was initiated because of a concern about the problems of youth entering the labor market and making an initial adjustment to work.

It is hoped that the data, interpretations, and conclusions can be translated into suggestions and guidelines for the benefit of CETA prime sponsors. The report also can serve as a contribution to the dissemination and utilization of what has been learned from research and development projects. Finally, this mechanism might also be a means of contributing

Department of Labor experience to the interagency committees discussing the issues in larger terms.

Sponsor: Department of labor

Classification: Labor-force participation

5072

Westat, Inc., *Sample design for the selection of a sample of schools with twelfth-graders for a longitudinal study*. Rockville, Maryland: Westat, Inc., June 1972.

This report describes the design and selection of a national probability sample of schools used in the National Longitudinal Study. Variables used for stratification were (1) control (public or private), (2) geographic distribution, (3) enrollment size class, (4) proximity to a public college or university, (5) percent minority, (6) income level of the community in which the school is located, and (7) degree of urbanization.

Sponsor: NCES

Classification: Methodology (sample design)

6000 Studies in Progress (titles and classifications are tentative)*

6001 Anderson, J. L. Labor force intentions and expected fertility among teenage girls. Columbia University.

Classification: Labor force participation

6002 Boardman, A. Simultaneous equation models of the educational process. University of Pennsylvania.

Classification: Postsecondary education (access)

6003 Boardman, A. Role of affective variables on occupational choice and success. University of Pennsylvania.

Classification: Labor force participation

6004 Erickson, E. Analysis of college going and college choice decisions. North Carolina State University.

Classification: Postsecondary education (access)

6005 Ferguson, T. Sex, income, city size, and self-concept and locus of control. University of Connecticut.

Classification: Psychological development

6006 Gordon, M. Transition from youth to adulthood. Carnegie Council on Higher Education, Berkeley, California.

Classification: Labor force participation

6007 Grandon, G. M. Birth order effects. University of Connecticut.

Classification: Home environment

6008 Grandon, G. M. How experiences of the gifted vary from others. University of Connecticut.

Classification: Secondary education (student characteristics)

6009 Grandon, G. M. Effects of locus of control and self-concept. University of Connecticut.

Classification: Psychological development

6010 Grandon, G. M. Curriculum of American high school students. University of Connecticut.

Classification: Secondary education (school effects)

6011 Gruber, J. E. Determinants of locus of control. University of Wisconsin.

Classification: Psychological development.

6012 Harrison, F. Expectations and aspirations issues. Claremont College.

Classification: Psychological development

6013 Hilton, T. Cohort change study to investigate the problem of SAT score decline. Educational Testing Service.

Classification: Secondary education (school effect); home environment

6014 Hilton, T. Persistence in higher education. Educational Testing Service.

Classification: Postsecondary education (performance)

6015 Hilton, T. Characteristics of students who take the SAT versus those who take the ACT.

Classification: Secondary education (student characteristics)

6016 Holsinger, D. B. School and self: Longitudinal evidence for a person-centered model of career decisions of American high school graduates. University of Arizona.

Classification: Secondary education (school effects)

6017 Krupp, J. Characteristics of the gifted. University of Connecticut.

Classification: Secondary education (student characteristics)

6018 Melaragno, R. Analysis on the target population for programs for the disadvantaged. System Development Corporation.

Classification: Secondary education (school effects)

6019 Munsterman, R. Junior college people, problems, predictors of success. Western Michigan University.

Classification: Postsecondary education (access, performance)

* No written material is available.

6020 Munsterman, R. Reading and attitudes. Western Michigan University.

Classification: Secondary education (student characteristics)

6021 Munsterman, R. High school career choices and achievement. Western Michigan University.

Classification: Secondary student characteristics)

6022 Page, E. Family size, birth order, and mental test performance. University of Connecticut.

Classification: Home environment

6023 Polich, M., & Cooper, R. Enlistment decision process. (NLS is only one of several data sources.) Rand Corporation.

Classification: Military service

6024 Schmidt, W. General description of the NLS. Michigan State University at East Lansing.

Classification: Other (history, objectives)

6025 Schmidt, W. Methodology paper regarding follow-up surveys. Michigan State University at East Lansing.

Classification: Methodology (nonresponse bias)

6026 Schmidt, W. Projected number of students entering college in the 1980's. Michigan State University at East Lansing.

Classification: Postsecondary education (access)

6027 Schmidt, W. The potential labor force 18-20: Who are they and what are they like? Michigan State University at East Lansing.

Classification: Labor force participation

6028 Schmidt, W. The effects of various individual level variables and school level variables on the political participation of high school students two years after high school. Michigan State University at East Lansing.

Classification: Secondary education (school effects)

6029 Schmidt, W. Between and within school differences as reflected on a battery of achievement tests. Michigan State University at East Lansing.

Classification: Secondary education (school effects)

B. Subject Index

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Appendix

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